


STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING						FORM 3 AMENDED REPORT <input type="checkbox"/>				
<b>APPLICATION FOR PERMIT TO DRILL</b>						1. WELL NAME and NUMBER GMBU 2-36-8-15H				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT MONUMENT BUTTE				
4. TYPE OF WELL Oil Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						5. UNIT or COMMUNITIZATION AGREEMENT NAME GMBU (GRRV)				
6. NAME OF OPERATOR NEWFIELD PRODUCTION COMPANY						7. OPERATOR PHONE 435 646-4825				
8. ADDRESS OF OPERATOR Rt 3 Box 3630 , Myton, UT, 84052						9. OPERATOR E-MAIL mcrozier@newfield.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML-21835			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input checked="" type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		934 FNL 2061 FEL		NWNE	36	8.0 S	15.0 E	S		
Top of Uppermost Producing Zone		934 FNL 2061 FEL		NWNE	36	8.0 S	15.0 E	S		
At Total Depth		190 FSL 1180 FWL		SWSW	36	8.0 S	15.0 E	S		
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 190			23. NUMBER OF ACRES IN DRILLING UNIT 640				
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 1320			26. PROPOSED DEPTH MD: 10671 TVD: 6111				
27. ELEVATION - GROUND LEVEL 5774			28. BOND NUMBER B001834			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 437478				
<b>Hole, Casing, and Cement Information</b>										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	12.25	8.625	0 - 300	24.0	J-55 ST&C	8.3	Class G	122	1.17	15.8
Prod	7.875	5.5	0 - 6571	20.0	N-80 LT&C	9.0	Premium Lite High Strength	217	3.53	11.0
							50/50 Poz	303	1.24	14.3
P2	7.875	4.5	6571 - 10671	11.6	P-110 LT&C	9.0	No Used	0	0.0	0.0
<b>ATTACHMENTS</b>										
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Mandie Crozier				TITLE Regulatory Tech			PHONE 435 646-4825			
SIGNATURE				DATE 11/17/2011			EMAIL mcrozier@newfield.com			
API NUMBER ASSIGNED 43013510650000				APPROVAL  Permit Manager						

**Newfield Production Company**  
**GMB 2-36-8-15H**  
**NW/NE Section 36, T8S, R15E**  
**Duchesne County, UT**

**Drilling Program**

**1. Formation Tops**

Uinta	surface
Green River	1,655'
Garden Gulch member	3,849'
TD	6,111' TVD / 10,671' MD

**2. Depth to Oil, Gas, Water, or Minerals**

Base of moderately saline	127'	(water)
Green River	3,849' - 6,111'	(oil)

**3. Pressure Control**

Section                      BOP Description

Surface                      No control

Production                The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 2M system.

A 2M BOP system will consist of 2 ram preventers (double or two singles), and a rotating head. A choke manifold rated to at least 2,000 psi will be used.

**4. Casing**

Description	Interval		Weight (ppf)	Grade	Coupl	Pore Press @ Shoe	MW @ Shoe	Frac Grad @ Shoe	Safety Factors		
	Top	Bottom (TVD/MD)							Burst	Collapse	Tension
Surface	0'	300'	24	J-55	STC	8.33	8.33	12	2,950	1,370	244,000
8 5/8									17.53	14.35	33.89
Production	0'	6,255'	20	N-80	LTC	8.33	9.0	--	9,190	8,830	428,000
5 1/2		6,571'							4.41	3.84	3.42
Production	6,571'	6,111'	11.6	P-110	LTC	8.33	9.0	--	10,690	7,560	279,000
4 1/2		10,671'							5.25	3.36	5.27

A tapered string of production casing will be run. A 7-7/8" hole will be drilled for the 5-1/2" casing in the vertical and curve sections of the well. A 6-1/8" hole will be drilled for the 4-1/2" casing in the lateral section of the well.

**Assumptions:**

Surface casing MASP = (frac gradient + 1.0 ppg) - (gas gradient)

Production casing MASP = (reservoir pressure) - (gas gradient)

All collapse calculations assume fully evacuated casing with a gas gradient

All tension calculations assume air weight of casing

Gas gradient = 0.1 psi/ft

All casing shall be new.

All casing strings shall have a minimum of 1 centralizer on each of the bottom 3 joints.

## 5. Cement

Job	Hole Size	Fill	Slurry Description	ft <sup>3</sup>	OH excess	Weight (ppg)	Yield (ft <sup>3</sup> /sk)
				sacks			
Surface	12 1/4	300'	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	142	15%	15.8	1.17
				122			
Production Lead	7 7/8	3,849'	Premium Lite II w/ 3% KCl + 10% bentonite	767	15%	11.0	3.53
				217			
Production Tail	7 7/8	1,886'	50/50 Poz/Class G w/ 3% KCl + 2% bentonite	376	15%	14.3	1.24
				303			

The surface casing will be cemented to surface. In the event that cement does not reach surface during the primary cement job, a remedial job will be performed.

A system of open hole packers will be used to isolate frac stages in the lateral. Open hole packers will be used to isolate the vertical portion of the well from the lateral. A port collar will be used to cement the vertical portion of the well.

Actual cement volumes for the production casing string will be calculated from an open hole caliper log, plus 15% excess.

## 6. Type and Characteristics of Proposed Circulating Medium

<u>Interval</u>	<u>Description</u>
Surface - 300'	An air and/or fresh water system will be utilized. If an air rig is used, the blooie line discharge may be less than 100' from the wellbore in order to minimize location size. The blooie line is not equipped with an automatic igniter. The air compressor may be located less than 100' from the well bore due to the low possibility of combustion with the air/dust mixture. Water will be on location to be used as kill fluid, if necessary.
300' - TD	A water based mud system will be utilized. Hole stability may be improved with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and if conditions warrant, with barite. Anticipated maximum mud weight is 9.0 ppg.

## 7. Logging, Coring, and Testing

Logging: A dual induction, gamma ray, and caliper log will be run from TD to the base of the surface casing. A compensated neutron/formation density log will be run from TD to the

top of the Garden Gulch formation. A Gamma Ray log will be run from TD to surface. A cement bond log will be run from the port collar to the cement top behind the production casing. (cemented interval)

Cores: As deemed necessary.

DST: There are no DST's planned for this well.

## 8. Anticipated Abnormal Pressure or Temperature

Maximum anticipated bottomhole pressure will be approximately equal to total depth (feet) multiplied by a 0.43 psi/ft gradient.

$$6,255' \times 0.43 \text{ psi/ft} = 2709 \text{ psi}$$

No abnormal temperature is expected. No H<sub>2</sub>S is expected.

## 9. Other Aspects

The well will be drilled vertically to a kick-off point of 5,735'. Directional tools will then be used to build to 92.02 degrees inclination. The hole size in the lateral will be reduced to 6-1/8". The lateral will be drilled to the bottomhole location shown on the plat.

A tapered string of production casing will be run in the well, with 5-1/2" casing in the vertical and curve portions and 4-1/2" casing in the lateral portion.

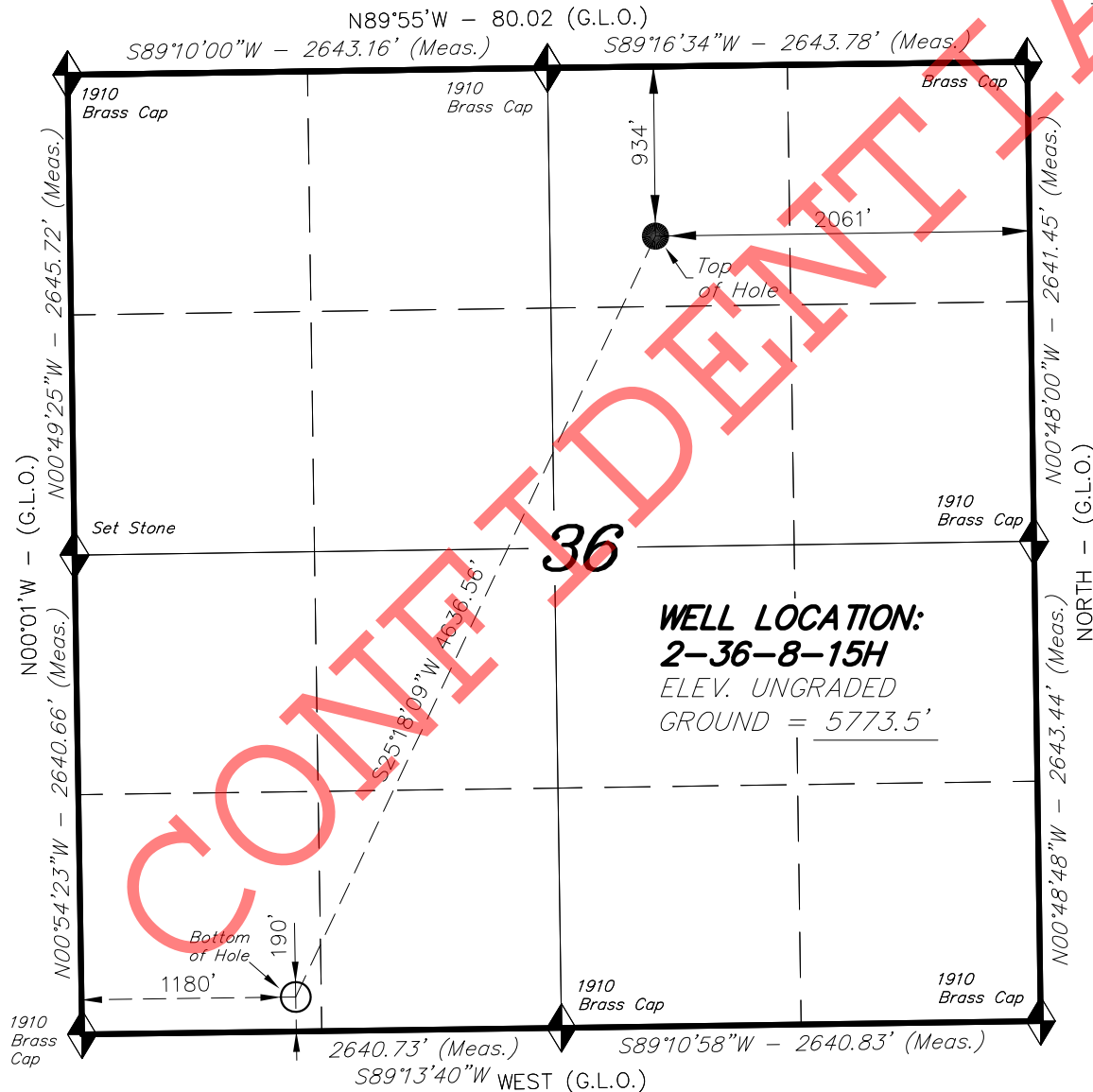
A system of open hole packers will be used to provide multi-stage frac isolation in the lateral.

A set of open hole packers will be placed at kick-off point to isolate the lateral. A port cementing collar will be placed above the packers and will be used to cement the vertical portion of the well bore.

Newfield requests the following Variances from Onshore Order # 2:

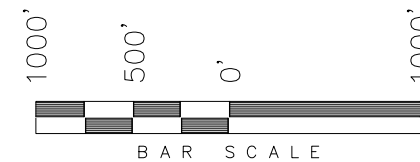
- Variance from Onshore Order 2, III.E.1

Refer to Newfield Production Company Standard Operating Practices "Ute Tribal Green River Development Program" paragraph 9.2

**T8S, R15E, S.L.B.&M.****NEWFIELD EXPLORATION COMPANY**

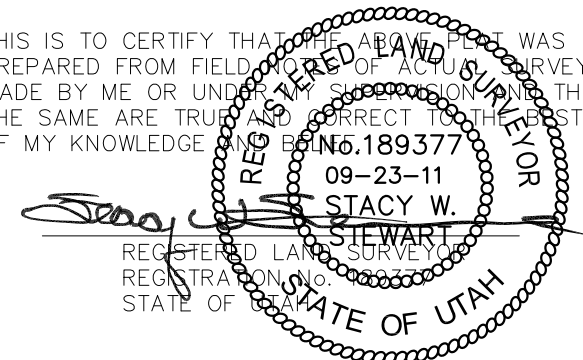
WELL LOCATION, 2-36-8-15H, LOCATED AS SHOWN IN THE NW 1/4 NE 1/4 OF SECTION 36, T8S, R15E, S.L.B.&M. DUCHESNE COUNTY, UTAH.

TARGET BOTTOM HOLE, 2-36-8-15H, LOCATED AS SHOWN IN THE SW 1/4 SW 1/4 OF SECTION 36, T8S, R15E, S.L.B.&M. DUCHESNE COUNTY, UTAH.

**Note:**

1. The Proposed Well head bears from the Corner of Section.
2. The Bottom of Hole bears from the Well head.

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD BOOKS OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; Elevations are base on LOCATION: an N.G.S. OPUS Correction.  
LAT. 40°04'09.56" LONG. 110°00'43.28"  
(Tristate Aluminum Cap) Elev. 5281.57'

2-36-8-15H  
(Surface Location) NAD 83  
LATITUDE = 40° 04' 44.95"  
LONGITUDE = 110° 10' 42.22"

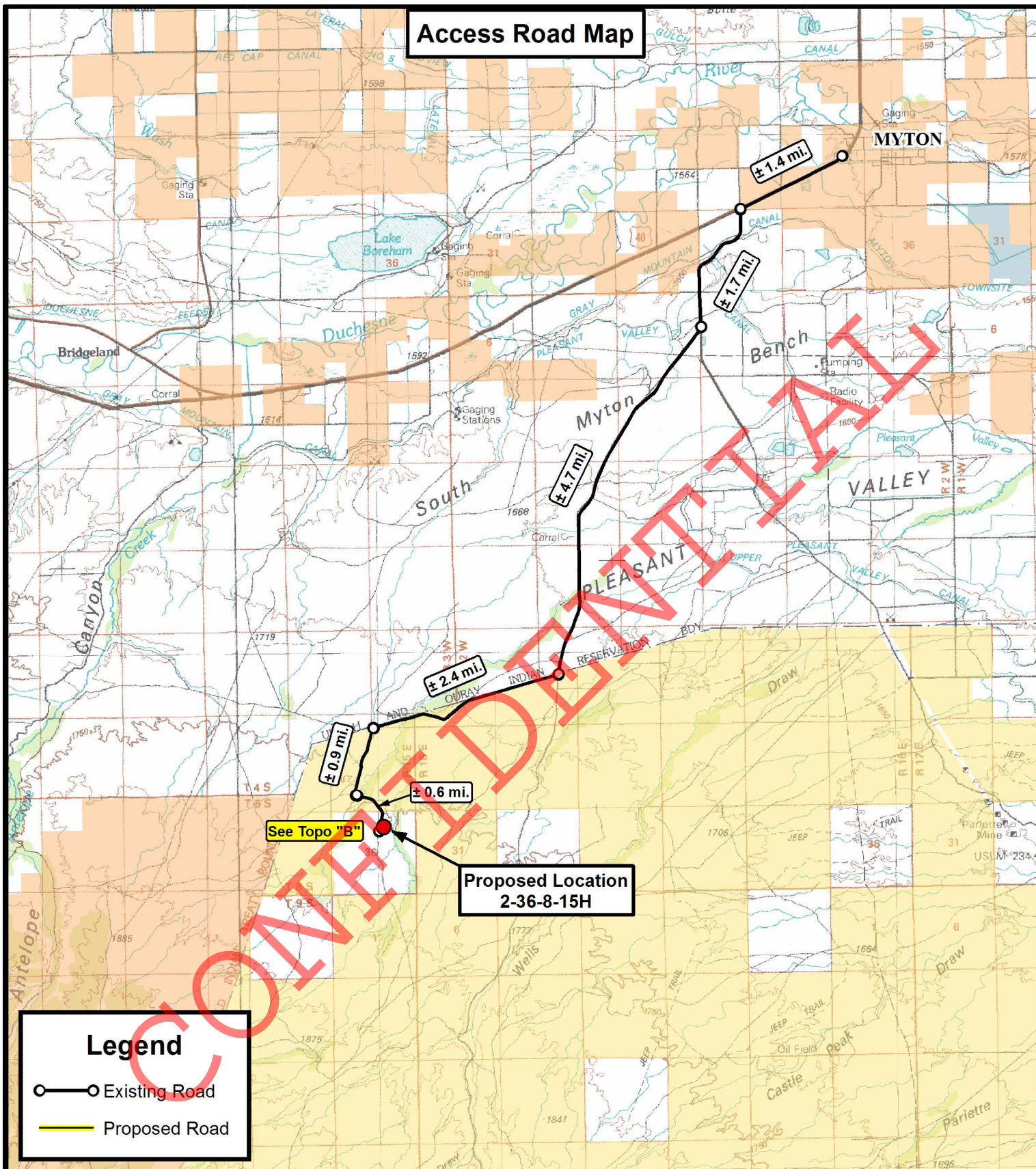
**TRI STATE LAND SURVEYING & CONSULTING**

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 09-12-11	SURVEYED BY: S.V.	VERSION:
DATE DRAWN: 09-16-11	DRAWN BY: F.T.M.	V1
REVISED:	SCALE: 1" = 1000'	

RECEIVED: November 17, 2011

## Access Road Map



**Tri State**  
**Land Surveying, Inc.**

180 NORTH VERNAL AVE. VERNAL, UTAH 84078

P: (435) 781-2501  
F: (435) 781-2518



# NEWFIELD EXPLORATION COMPANY

**2-36-8-15H**  
**SEC. 36, T8S, R15E, S.L.B.&M.**  
**Duchesne County, UT.**

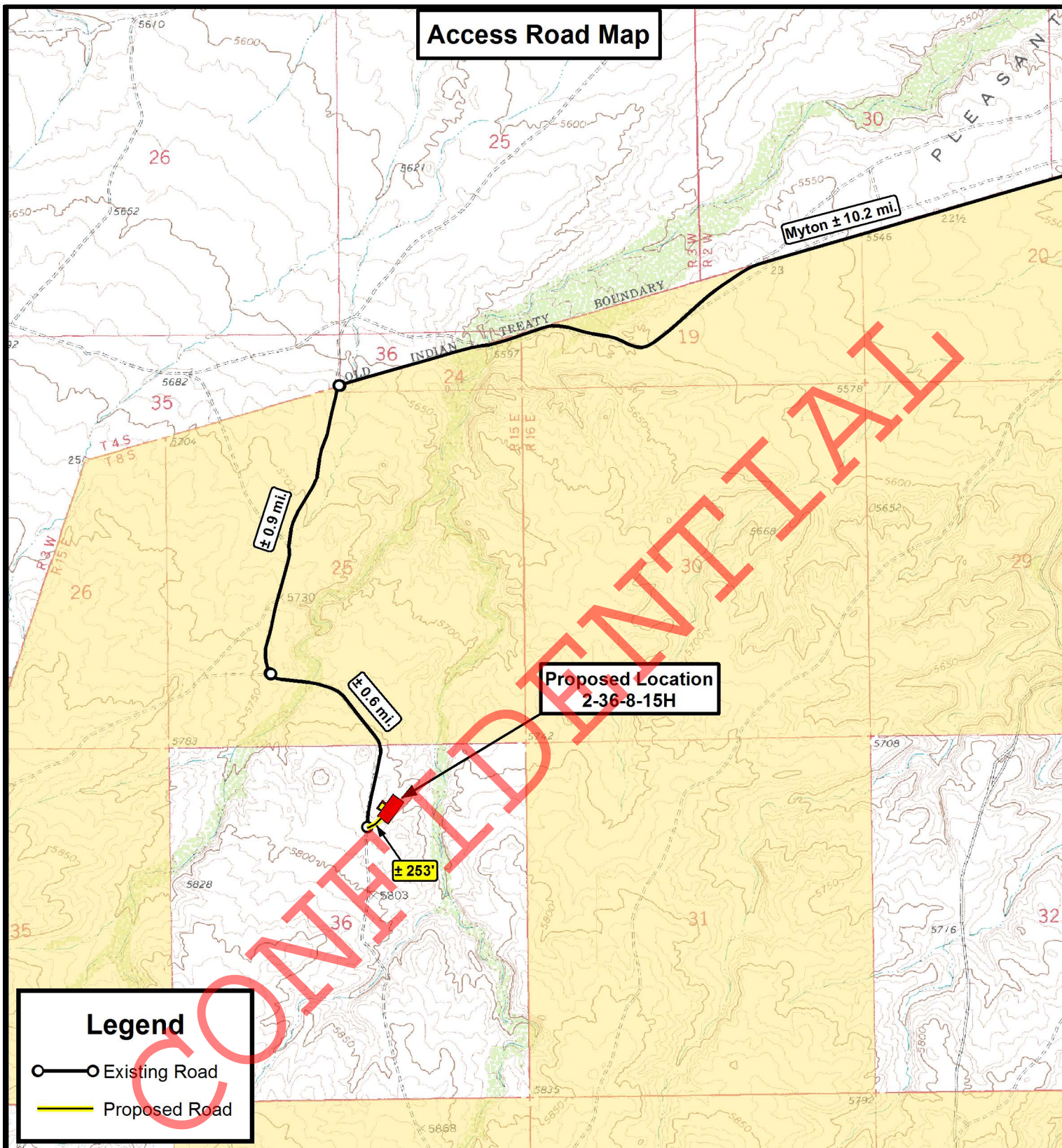
DRAWN BY:	D.C.R.	REVISED:	VERSION:
DATE:	09-19-2011		<b>V1</b>
SCALE:	1:100,000		

**TOPOGRAPHIC MAP**

SHEET

**A**

## Access Road Map



THE PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY TRI-STATE LAND SURVEYING, INC. - TRI-STATE DOES NOT WARRANTY PROPERTY PARCEL DATA OR ANY ASSOCIATED INFORMATION. A PROPERTY SURVEY IS REQUIRED TO DETERMINE THE ACTUAL LOCATION OF PROPERTY LINES AND SHOW ACCURATE DISTANCES ACROSS PARCELS.



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2-36-8-15H  
SEC. 36, T8S, R15E, S.L.B.&M.  
Duchesne County, UT.

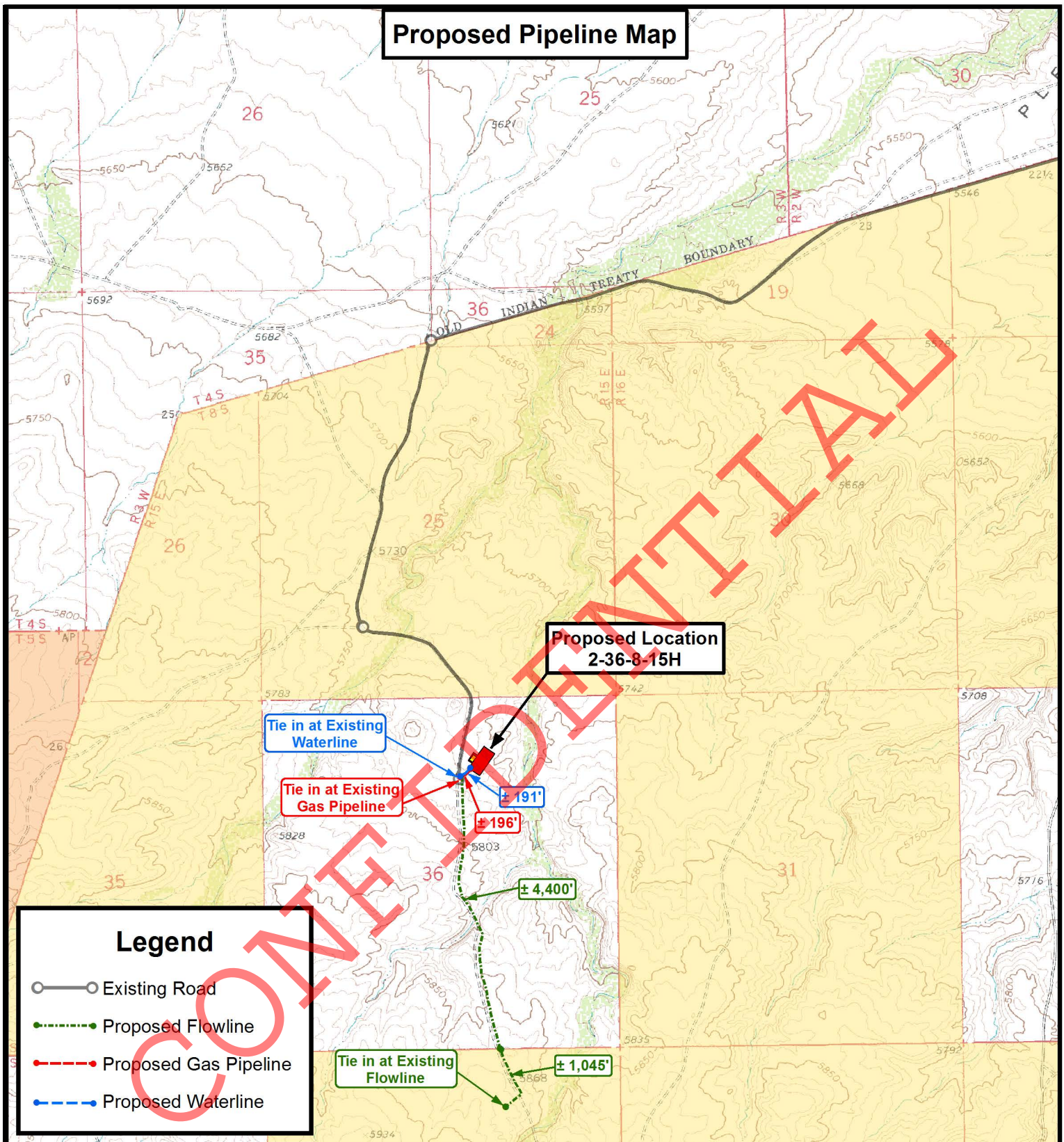
DRAWN BY:	D.C.R.	REVISED:	VERSION:
DATE:	09-19-2011		V1
SCALE:	1" = 2,000'		

TOPOGRAPHIC MAP

SHEET

**B**

# Proposed Pipeline Map



## Legend

- Existing Road
- Proposed Flowline
- Proposed Gas Pipeline
- Proposed Waterline

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## NEWFIELD EXPLORATION COMPANY

2-36-8-15H  
SEC. 36, T8S, R15E, S.L.B.&M.  
Duchesne County, UT.

DRAWN BY:	D.C.R.	REVISED:	VERSION:
DATE:	09-19-2011		V1
SCALE:	1" = 2,000'		

**TOPOGRAPHIC MAP**

SHEET

**C**

**Exhibit "B" Map****Proposed Location  
2-36-8-15H****Legend**

1 Mile Radius



Proposed Location

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**NEWFIELD EXPLORATION COMPANY**

**2-36-8-15H  
SEC. 36, T8S, R15E, S.L.B.&M.  
Duchesne County, UT.**

DRAWN BY:	D.C.R.	REVISED:	VERSION:
DATE:	09-19-2011		<b>V1</b>
SCALE:	1" = 2,000'		

**TOPOGRAPHIC MAP**

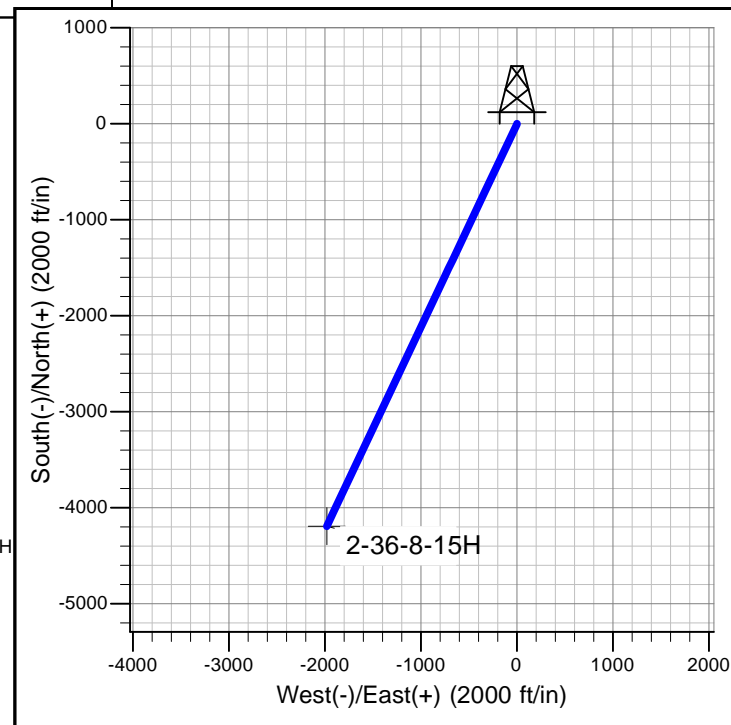
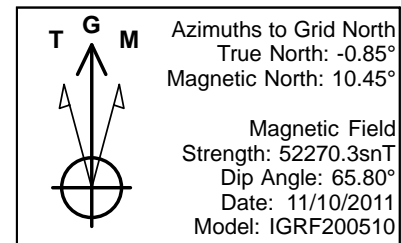
SHEET

**D**



# Newfield Production Company

**Project: Utah**  
**Site: GMB 2-36-8-15H**  
**Well: GMB 2-36-8-15H**  
**Wellbore: Wellbore #1**  
**Design: Design #1**



## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5735.0	0.00	0.00	5735.0	0.0	0.0	0.00	0.00	0.0	
3	6571.5	92.02	205.30	6255.5	-487.5	-230.4	11.00	205.30	539.2	
4	10671.4	92.02	205.30	6111.0	-4191.8	-1981.5	0.00	0.00	4636.6	2-36-8-15H

## PROJECT DETAILS: Utah

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Utah Central Zone  
 System Datum: Mean Sea Level

# **Newfield Production Company**

**Utah**

**GMB 2-36-8-15H**

**GMB 2-36-8-15H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**10 November, 2011**

CONFIDENTIAL

## Planning Report

<b>Database:</b>	EDM 5000.1 Update	<b>Local Co-ordinate Reference:</b>	Site GMB 2-36-8-15H
<b>Company:</b>	Newfield Production Company	<b>TVD Reference:</b>	RKB @ 5787.0ft
<b>Project:</b>	Utah	<b>MD Reference:</b>	RKB @ 5787.0ft
<b>Site:</b>	GMB 2-36-8-15H	<b>North Reference:</b>	Grid
<b>Well:</b>	GMB 2-36-8-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Project	Utah		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site		GMB 2-36-8-15H			
Site Position:		Northing:	2,194,651.99 m	Latitude:	40° 4' 44.950 N
From:	Lat/Long	Easting:	612,712.10 m	Longitude:	110° 10' 42.220 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.85 °

Well	GMB 2-36-8-15H					
Well Position	+N/-S	0.0 ft	Northing:	2,194,651.99 m	Latitude:	40° 4' 44.950 N
	+E/-W	0.0 ft	Easting:	612,712.10 m	Longitude:	110° 10' 42.220 W
Position Uncertainty		0.0 ft	Wellhead Elevation:		Ground Level:	5,774.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/10/2011	11.29	65.80	52,270

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	205.30

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,735.0	0.00	0.00	5,735.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,571.5	92.02	205.30	6,255.5	-487.5	-230.4	11.00	11.00	0.00	205.30	
10,671.4	92.02	205.30	6,111.0	-4,191.8	-1,981.5	0.00	0.00	0.00	0.00	2-36-8-15H

## Planning Report

<b>Database:</b>	EDM 5000.1 Update	<b>Local Co-ordinate Reference:</b>	Site GMB 2-36-8-15H
<b>Company:</b>	Newfield Production Company	<b>TVD Reference:</b>	RKB @ 5787.0ft
<b>Project:</b>	Utah	<b>MD Reference:</b>	RKB @ 5787.0ft
<b>Site:</b>	GMB 2-36-8-15H	<b>North Reference:</b>	Grid
<b>Well:</b>	GMB 2-36-8-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.1 Update	<b>Local Co-ordinate Reference:</b>	Site GMB 2-36-8-15H
<b>Company:</b>	Newfield Production Company	<b>TVD Reference:</b>	RKB @ 5787.0ft
<b>Project:</b>	Utah	<b>MD Reference:</b>	RKB @ 5787.0ft
<b>Site:</b>	GMB 2-36-8-15H	<b>North Reference:</b>	Grid
<b>Well:</b>	GMB 2-36-8-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,735.0	0.00	0.00	5,735.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	7.15	205.30	5,799.8	-3.7	-1.7	4.1	11.00	11.00	0.00
5,900.0	18.15	205.30	5,897.3	-23.4	-11.1	25.9	11.00	11.00	0.00
6,000.0	29.15	205.30	5,988.7	-59.7	-28.2	66.0	11.00	11.00	0.00
6,100.0	40.15	205.30	6,070.8	-111.0	-52.5	122.8	11.00	11.00	0.00
6,200.0	51.15	205.30	6,140.6	-175.5	-83.0	194.2	11.00	11.00	0.00
6,300.0	62.15	205.30	6,195.5	-250.9	-118.6	277.6	11.00	11.00	0.00
6,400.0	73.15	205.30	6,233.5	-334.4	-158.1	369.9	11.00	11.00	0.00
6,500.0	84.15	205.30	6,253.1	-422.9	-199.9	467.8	11.00	11.00	0.00
6,571.5	92.02	205.30	6,255.5	-487.5	-230.4	539.2	11.00	11.00	0.00
6,600.0	92.02	205.30	6,254.5	-513.2	-242.6	567.7	0.00	0.00	0.00
6,700.0	92.02	205.30	6,251.0	-603.6	-285.3	667.6	0.00	0.00	0.00
6,800.0	92.02	205.30	6,247.5	-694.0	-328.0	767.6	0.00	0.00	0.00
6,900.0	92.02	205.30	6,243.9	-784.3	-370.7	867.5	0.00	0.00	0.00
7,000.0	92.02	205.30	6,240.4	-874.7	-413.4	967.5	0.00	0.00	0.00
7,100.0	92.02	205.30	6,236.9	-965.0	-456.2	1,067.4	0.00	0.00	0.00
7,200.0	92.02	205.30	6,233.4	-1,055.4	-498.9	1,167.3	0.00	0.00	0.00
7,300.0	92.02	205.30	6,229.8	-1,145.7	-541.6	1,267.3	0.00	0.00	0.00
7,400.0	92.02	205.30	6,226.3	-1,236.1	-584.3	1,367.2	0.00	0.00	0.00
7,500.0	92.02	205.30	6,222.8	-1,326.4	-627.0	1,467.1	0.00	0.00	0.00
7,600.0	92.02	205.30	6,219.3	-1,416.8	-669.7	1,567.1	0.00	0.00	0.00
7,700.0	92.02	205.30	6,215.7	-1,507.1	-712.4	1,667.0	0.00	0.00	0.00
7,800.0	92.02	205.30	6,212.2	-1,597.5	-755.1	1,767.0	0.00	0.00	0.00
7,900.0	92.02	205.30	6,208.7	-1,687.8	-797.8	1,866.9	0.00	0.00	0.00
8,000.0	92.02	205.30	6,205.2	-1,778.2	-840.5	1,966.8	0.00	0.00	0.00
8,100.0	92.02	205.30	6,201.6	-1,868.5	-883.2	2,066.8	0.00	0.00	0.00
8,200.0	92.02	205.30	6,198.1	-1,958.9	-926.0	2,166.7	0.00	0.00	0.00
8,300.0	92.02	205.30	6,194.6	-2,049.2	-968.7	2,266.6	0.00	0.00	0.00
8,400.0	92.02	205.30	6,191.1	-2,139.6	-1,011.4	2,366.6	0.00	0.00	0.00
8,500.0	92.02	205.30	6,187.5	-2,229.9	-1,054.1	2,466.5	0.00	0.00	0.00
8,600.0	92.02	205.30	6,184.0	-2,320.3	-1,096.8	2,566.5	0.00	0.00	0.00
8,700.0	92.02	205.30	6,180.5	-2,410.6	-1,139.5	2,666.4	0.00	0.00	0.00
8,800.0	92.02	205.30	6,177.0	-2,501.0	-1,182.2	2,766.3	0.00	0.00	0.00
8,900.0	92.02	205.30	6,173.4	-2,591.3	-1,224.9	2,866.3	0.00	0.00	0.00
9,000.0	92.02	205.30	6,169.9	-2,681.7	-1,267.6	2,966.2	0.00	0.00	0.00
9,100.0	92.02	205.30	6,166.4	-2,772.0	-1,310.3	3,066.1	0.00	0.00	0.00
9,200.0	92.02	205.30	6,162.9	-2,862.4	-1,353.1	3,166.1	0.00	0.00	0.00
9,300.0	92.02	205.30	6,159.3	-2,952.8	-1,395.8	3,266.0	0.00	0.00	0.00
9,400.0	92.02	205.30	6,155.8	-3,043.1	-1,438.5	3,366.0	0.00	0.00	0.00
9,500.0	92.02	205.30	6,152.3	-3,133.5	-1,481.2	3,465.9	0.00	0.00	0.00
9,600.0	92.02	205.30	6,148.8	-3,223.8	-1,523.9	3,565.8	0.00	0.00	0.00
9,700.0	92.02	205.30	6,145.2	-3,314.2	-1,566.6	3,665.8	0.00	0.00	0.00
9,800.0	92.02	205.30	6,141.7	-3,404.5	-1,609.3	3,765.7	0.00	0.00	0.00
9,900.0	92.02	205.30	6,138.2	-3,494.9	-1,652.0	3,865.6	0.00	0.00	0.00
10,000.0	92.02	205.30	6,134.7	-3,585.2	-1,694.7	3,965.6	0.00	0.00	0.00
10,100.0	92.02	205.30	6,131.1	-3,675.6	-1,737.4	4,065.5	0.00	0.00	0.00
10,200.0	92.02	205.30	6,127.6	-3,765.9	-1,780.1	4,165.5	0.00	0.00	0.00
10,300.0	92.02	205.30	6,124.1	-3,856.3	-1,822.9	4,265.4	0.00	0.00	0.00
10,400.0	92.02	205.30	6,120.6	-3,946.6	-1,865.6	4,365.3	0.00	0.00	0.00
10,500.0	92.02	205.30	6,117.0	-4,037.0	-1,908.3	4,465.3	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.1 Update	<b>Local Co-ordinate Reference:</b>	Site GMB 2-36-8-15H
<b>Company:</b>	Newfield Production Company	<b>TVD Reference:</b>	RKB @ 5787.0ft
<b>Project:</b>	Utah	<b>MD Reference:</b>	RKB @ 5787.0ft
<b>Site:</b>	GMB 2-36-8-15H	<b>North Reference:</b>	Grid
<b>Well:</b>	GMB 2-36-8-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,600.0	92.02	205.30	6,113.5	-4,127.3	-1,951.0	4,565.2	0.00	0.00	0.00
10,671.4	92.02	205.30	6,111.0	-4,191.8	-1,981.5	4,636.6	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
- hit/miss target									
- Shape									
2-36-8-15H	0.00	0.00	6,111.0	-4,191.8	-1,981.5	2,193,374.32	612,108.14	40° 4' 3.815 N	110° 11' 8.503 W
- plan hits target center									
- Point									

NEWFIELD PRODUCTION COMPANY  
GMBU 2-36-8-15H  
SHL: NW/NE SECTION 36, T8S, R15E  
BHL: SW/SW SECTION 36, T8S, R15E  
DUCHESNE COUNTY, UTAH

THIRTEEN POINT SURFACE PROGRAM

1. **EXISTING ROADS**

See attached **Topographic Map "A"**

To reach Newfield Production Company well location site GMBU 2-36-8-15H located in the NW¼ NE¼ Section 36, T8S, R15E, S.L.B. & M., Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.4 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed southwesterly - 6.4 miles  $\pm$  to its junction with an existing road to the southwest; proceed southwesterly - 2.4 miles  $\pm$  to its junction with an existing road to the southwest; continue in a southwesterly direction - 0.9 miles  $\pm$  to its junction with an existing road to the east; continue in a southeasterly direction - 0.6 miles  $\pm$  to its junction with the beginning of the proposed access road to the northeast; proceed northeasterly along the proposed access road - 253'  $\pm$  to the proposed well location.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads to the point where Highway 216 exists to the South, thereafter the roads are constructed with existing materials and gravel. The highways are maintained by Utah State road crews. All other roads are maintained by County crews.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads for access during the drilling, completion and production phase will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal.

2. **PLANNED ACCESS ROAD**

Approximately 253' of access road is proposed. See attached **Topographic Map "B"**.

The proposed access road will be an 18' crown road (9' either side of the centerline) with drainage ditches along either side of the proposed road whether it is deemed necessary in order to handle any run-off from normal meteorological conditions that are prevalent to this area. The maximum grade will be less than 8%.

There will be no culverts required along this access road. There will be barrow ditches and turnouts as needed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

3. **LOCATION OF EXISTING WELLS**

Refer to **EXHIBIT B**.

4. **LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

Upon construction of a tank battery, the well pad will be surrounded by a dike of sufficient capacity to contain at minimum 110% of the largest tank volume within the facility battery.

Tank batteries will be built to State specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six months of installation.

5. **LOCATION AND TYPE OF WATER SUPPLY**

Newfield Production will transport water by truck for drilling purposes from the following water sources:

Johnson Water District  
Water Right: 43-7478

Neil Moon Pond  
Water Right: 43-11787

Maurice Harvey Pond  
Water Right: 47-1358

Newfield Collector Well  
Water Right: 47-1817 (A30414DVA, contracted with the Duchesne County Conservancy District).

There will be no water well drilled at this site

6. **SOURCE OF CONSTRUCTION MATERIALS**

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

7. **METHODS FOR HANDLING WASTE DISPOSAL**

A small reserve pit (90' x 40' x 8' deep, or less) will be constructed from native soil and clay materials. The reserve pit will receive the processed drill cutting (wet sand, shale & rock) removed from the wellbore. Any drilling fluids, which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed. All drilling fluids will be fresh water based, typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. A 16 mil liner with felt will be required. Newfield requests approval that a flare pit be constructed and utilized on this location.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

8. **ANCILLARY FACILITIES:**

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. **WELL SITE LAYOUT:**

See attached Location Layout Sheet.

**Fencing Requirements**

All pits will be fenced according to the following minimum standards:

- a) A 39-inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be centered and/or braced in such a manner to keep tight at all times
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

10. **PLANS FOR RESTORATION OF SURFACE:**

a) **Producing Location**

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximated natural contours. Weather permitting, the reserve pit will be reclaimed within one hundred twenty (120) days from

the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

b) **Dry Hole Abandoned Location**

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the State of Utah will attach the appropriate surface rehabilitation conditions of approval.

11. **SURFACE OWNERSHIP:** State of Utah.

12. **OTHER ADDITIONAL INFORMATION:**

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. State of Utah Antiquities Project Permit #U-08-MQ-1227b,s 1/26/09. Paleontological Resource Survey prepared by, Wade E. Miller, 10/20/11.

Newfield Production Company requests 253' of planned access road be granted. **Refer to Topographic Map "B"**. Newfield Production Company requests 196' of surface gas line be granted. Newfield Production Company requests 191' of buried water line be granted.

It is proposed that the disturbed area will be 60' wide to allow for construction of the proposed access road, a 10" or smaller gas gathering line, a 4" poly fuel gas line, a buried 10" steel water injection line, a buried 3" poly water return line, and a and a 14" surface flow line. The planned access road will consist of a 20' permanent running surface (10' either side of the centerline) crowned and ditched in order to handle any run-off from any precipitation events that are prevalent to this area. The maximum grade will be less than 8%. There will be no culverts required along this access road. There will be turnouts as needed along this road to allow for increases in potential traffic issues. There are no fences encountered along this proposed road. There will be no new gates or cattle guards required. All construction material for this access road will be borrowed material accumulated during construction of the access road.

Both the proposed surface gas and buried water lines will tie in to the existing pipeline infrastructure. **Refer to Topographic Map "C."** The proposed water pipelines will be buried in a 4-5' deep trench constructed with a trencher or backhoe for the length of the proposal. The equipment will run on the surface and not be flat bladed to minimize surface impacts to precious topsoil in these High Desert environments. If possible, all proposed surface gas pipelines will be installed on the same side of the road as existing gas lines. The construction phase of the planned access road, proposed gas lines and proposed water lines will last approximately (5) days.

In the event that the proposed well is converted to a water injection well, a Sundry Notice form will be applied for through the State of Utah DOGM office.

**Surface Flow Line**

Newfield requests 4,400' of surface flow line be granted. The Surface Flow Line will consist of up to a 14" bundled pipe consisting of 2-2" poly glycol lines and 1-3" production line. For all new wells, Newfield. Refer to Topographic Map "C" for the proposed location of the proposed flow line. Flow lines will be tan and will be constructed using the following procedures:

**Clearing and Grading:** No clearing or grading of the ROW will be required. The centerline of the proposed route will be staked prior to installation. Flow lines shall be placed as close to existing roads as possible without interfering with normal road travel or road maintenance activities. Due to the proximity of existing facilities, no temporary use or construction/storage areas are anticipated. If necessary, temporary use or construction/storage areas will be identified on a topographic map included in the approved permit.

Installation: The proposed flow lines will be installed 4-6" above the ground. For portions along existing two-track and primary access roads, lengths of pipe will be strung out in the borrow ditch, welded together, and rolled or dragged into place with heavy equipment. For pipelines that are installed cross-country (not along existing or proposed roads), travel along the lines will be infrequent and for maintenance needs only. No installation activities will be performed during periods when the soil is too wet to adequately support installation equipment. If such equipment creates ruts in excess of three (3) inches deep, the soil will be deemed too wet to adequately support the equipment.

Termination and Final Reclamation: After abandonment of the associated production facilities, the flow lines will be cut and removed, and any incidental surface disturbance reclaimed. Reclamation procedures will follow those outlined in the Castle Peak and Eight Mile Flat Reclamation and Weed Management Plan.

- a) Newfield Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Newfield is to immediately stop work that might further disturb such materials and contact the Authorized Officer.
- b) Newfield Production will control noxious weeds along rights-of-way for roads, pipelines, well sites or other applicable facilities. On State administered land it is required that a Pesticide Use Proposal shall be submitted and given approval prior to the application of herbicides or other possible hazardous chemicals.
- c) Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on State Lands after the conclusion of drilling operations or at any other time without State authorization. However, if State authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

#### **Water Disposal**

After first production, if the production water meets quality guidelines, it will be transported to the Ashley, Monument Butte, Jonah, South Wells Draw and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project. Water not meeting quality criteria, will be disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E), Federally approved surface disposal facilities or at a State of Utah approved surface disposal facilities.

#### **Additional Surface Stipulations**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. A copy of these conditions will be furnished to the field representative to ensure compliance.

#### **Hazardous Material Declaration**

Newfield Production Company guarantees that during the drilling and completion of the GMBU 2-36-8-15H, Newfield will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Newfield also guarantees that during the drilling and completion of the GMBU 2-36-8-15H Newfield will use, produce,

store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Newfield Production Company or a contractor employed by Newfield Production shall contact the State office at (801) 722-3417, 48 hours prior to construction activities.

The State office shall be notified upon site completion prior to moving on the drilling rig.

13. **LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:**

Representative

Name: Tim Eaton  
Address: Newfield Production Company  
Route 3, Box 3630  
Myton, UT 84052  
Telephone: (435) 646-3721

Certification

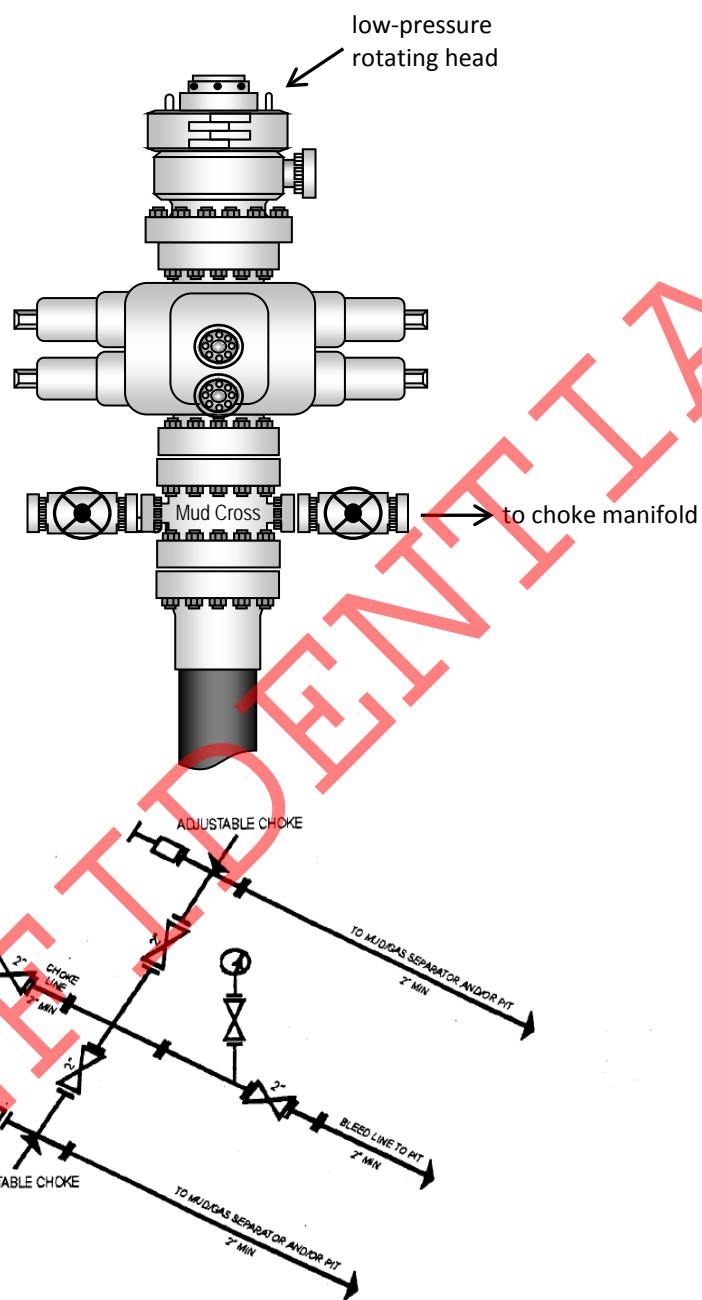
Please be advised that Newfield Production Company is considered to be the operator of well #2-36-8-15H, NW/NE Section 36, T8S, R15E, Duchesne County, Utah and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Bond #B001834.

I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

11/17/11  
Date

Mandie Crozier  
Regulatory Analyst  
Newfield Production Company

## Typical 2M BOP stack configuration



2M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

**NEWFIELD EXPLORATION COMPANY****WELL PAD INTERFERENCE PLAT****2-36-8-15H (Proposed Well)***Pad Location: NWNE Section 36, T8S, R15E, S.L.B.&M.***TOP HOLE FOOTAGES**

2-36-8-15H (PROPOSED)  
 934' FNL & 2061' FEL

Future Pit

2-36-8-15H (PROPOSED)

S35°21'37"W

S25°18'09"W 4636.56'  
 (To Bottom Hole)

Proposed Road

Edge of  
 Proposed Pad

**BOTTOM HOLE FOOTAGES**

2-36-8-15H (PROPOSED)  
 190' FSL & 1180' FWL

**Note:**

Bearings are based  
 on GPS Observations.

**RELATIVE COORDINATES**  
 From Top Hole to Bottom Hole

WELL	NORTH	EAST
2-36-8-15H	-4,192'	-1,982'

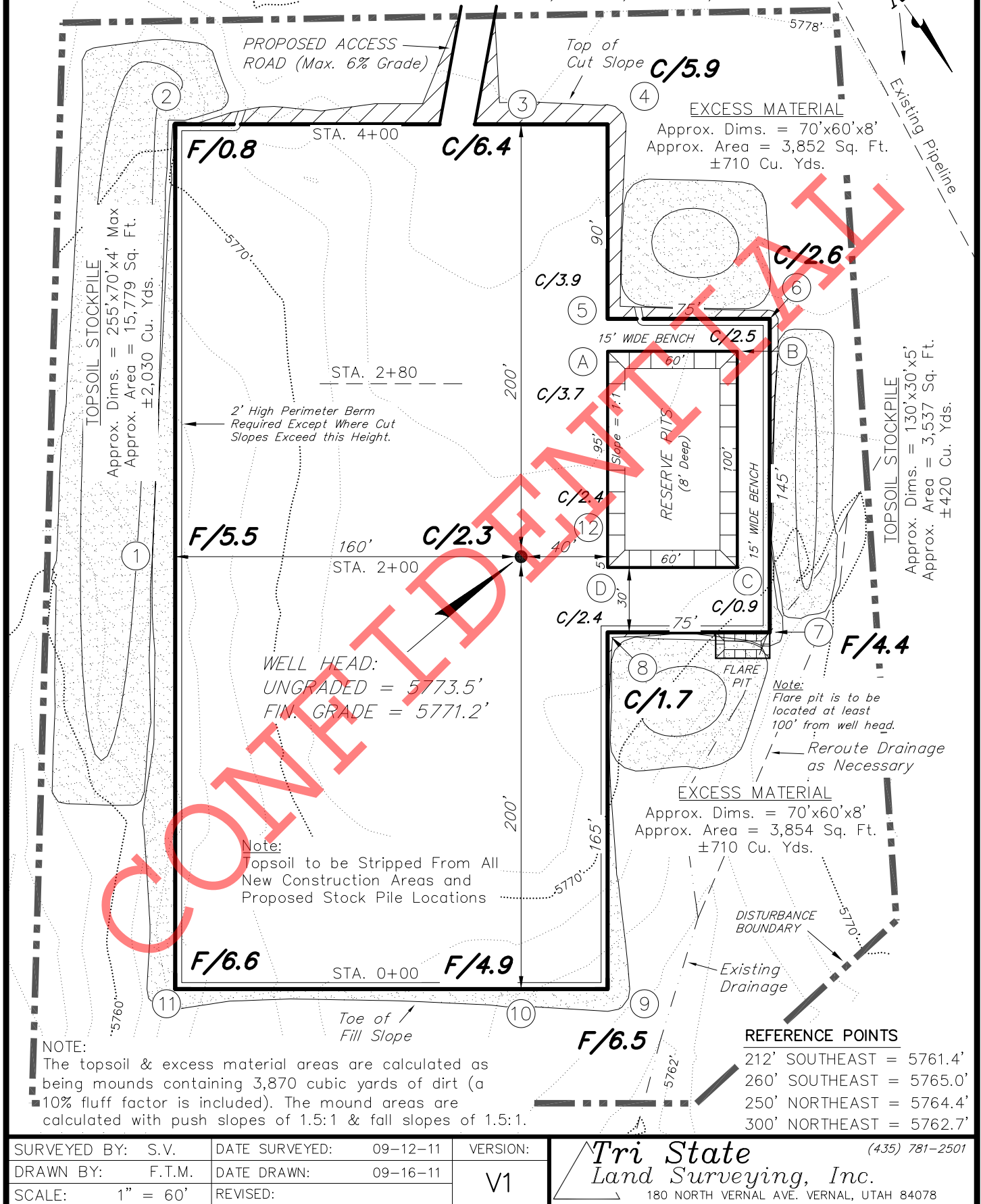
**LATITUDE & LONGITUDE**  
 Surface position of Wells (NAD 83)

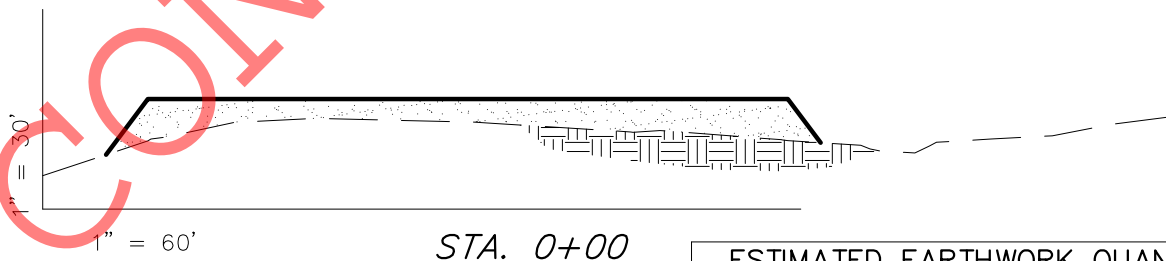
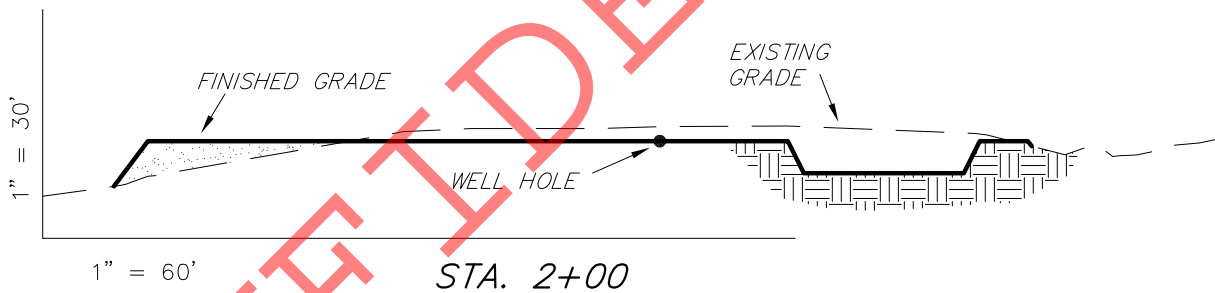
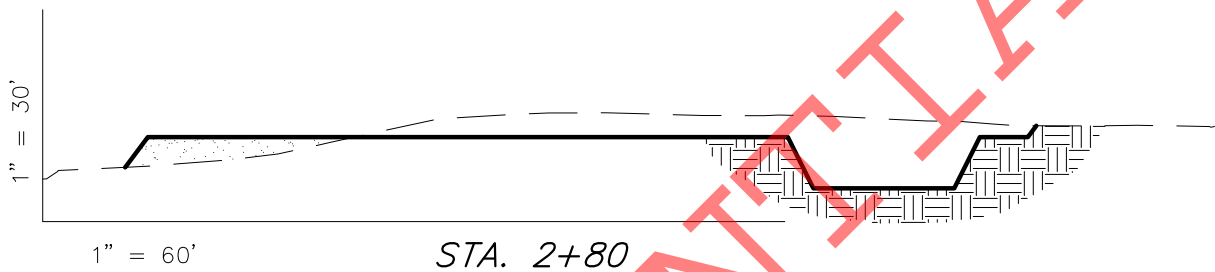
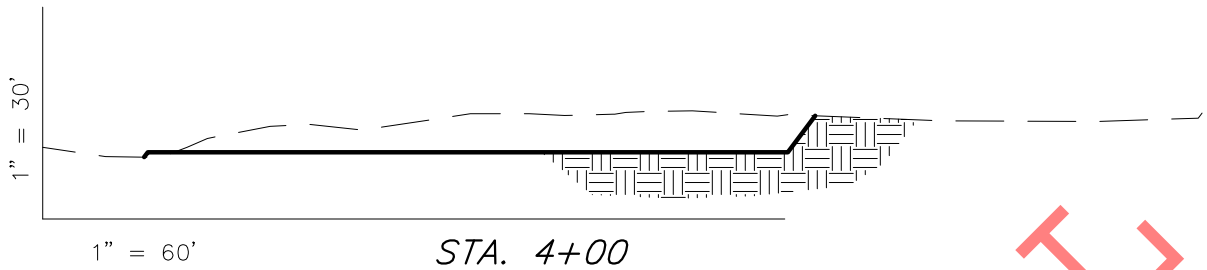
WELL	LATITUDE	LONGITUDE
2-36-8-15H	40° 04' 44.95"	110° 10' 42.22"

SURVEYED BY: S.V.	DATE SURVEYED: 09-12-11	VERSION:
DRAWN BY: F.T.M.	DATE DRAWN: 09-16-11	V1
SCALE: 1" = 60'	REVISED:	

**Tri State** (435) 781-2501  
 Land Surveying, Inc.  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078

RECEIVED: November 17, 2011

**NEWFIELD EXPLORATION COMPANY****LOCATION LAYOUT****2-36-8-15H****Pad Location: NWNE Section 36, T8S, R15E, S.L.B.&M.****RECEIVED: November 17, 2011**

**NEWFIELD EXPLORATION COMPANY****CROSS SECTIONS****2-36-8-15H***Pad Location: NWNE Section 36, T8S, R15E, S.L.B.&M.*

NOTE:  
UNLESS OTHERWISE  
NOTED ALL CUT/FILL  
SLOPES ARE AT 1.5:1

**ESTIMATED EARTHWORK QUANTITIES**  
(No Shrink or swell adjustments have been used)  
(Expressed in Cubic Yards)

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	4,560	4,560	Topsoil is not included in Pad Cut	0
PIT	1,420	0		1,420
TOTALS	5,980	4,560	2,230	1,420

SURVEYED BY: S.V.	DATE SURVEYED: 09-12-11	VERSION:
DRAWN BY: F.T.M.	DATE DRAWN: 09-16-11	V1
SCALE: 1" = 60'	REVISED:	

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501

RECEIVED: November 17, 2011

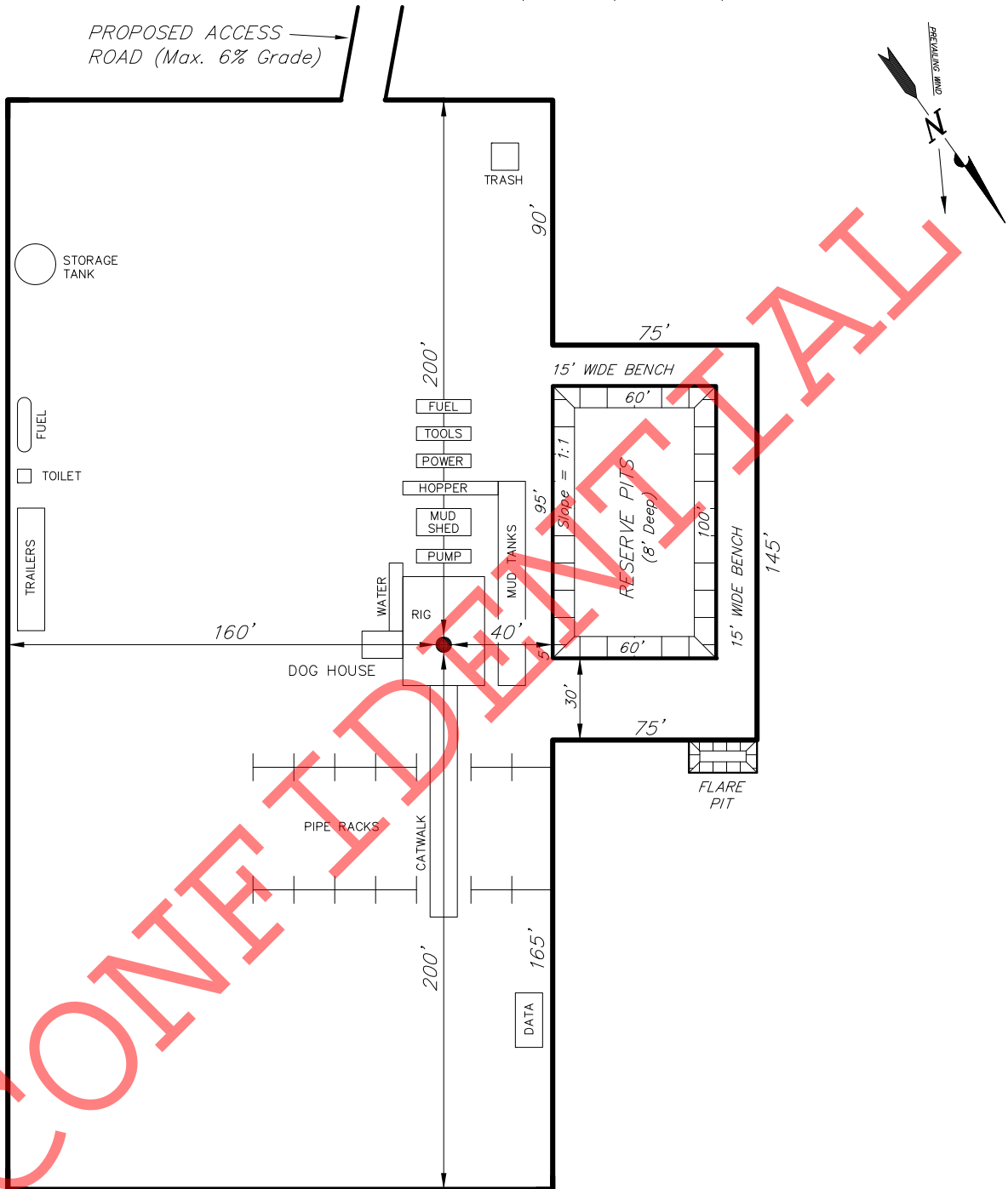
# NEWFIELD EXPLORATION COMPANY

## TYPICAL RIG LAYOUT

**2-36-8-15H**

*Pad Location: NWNE Section 36, T8S, R15E, S.L.B.&M.*

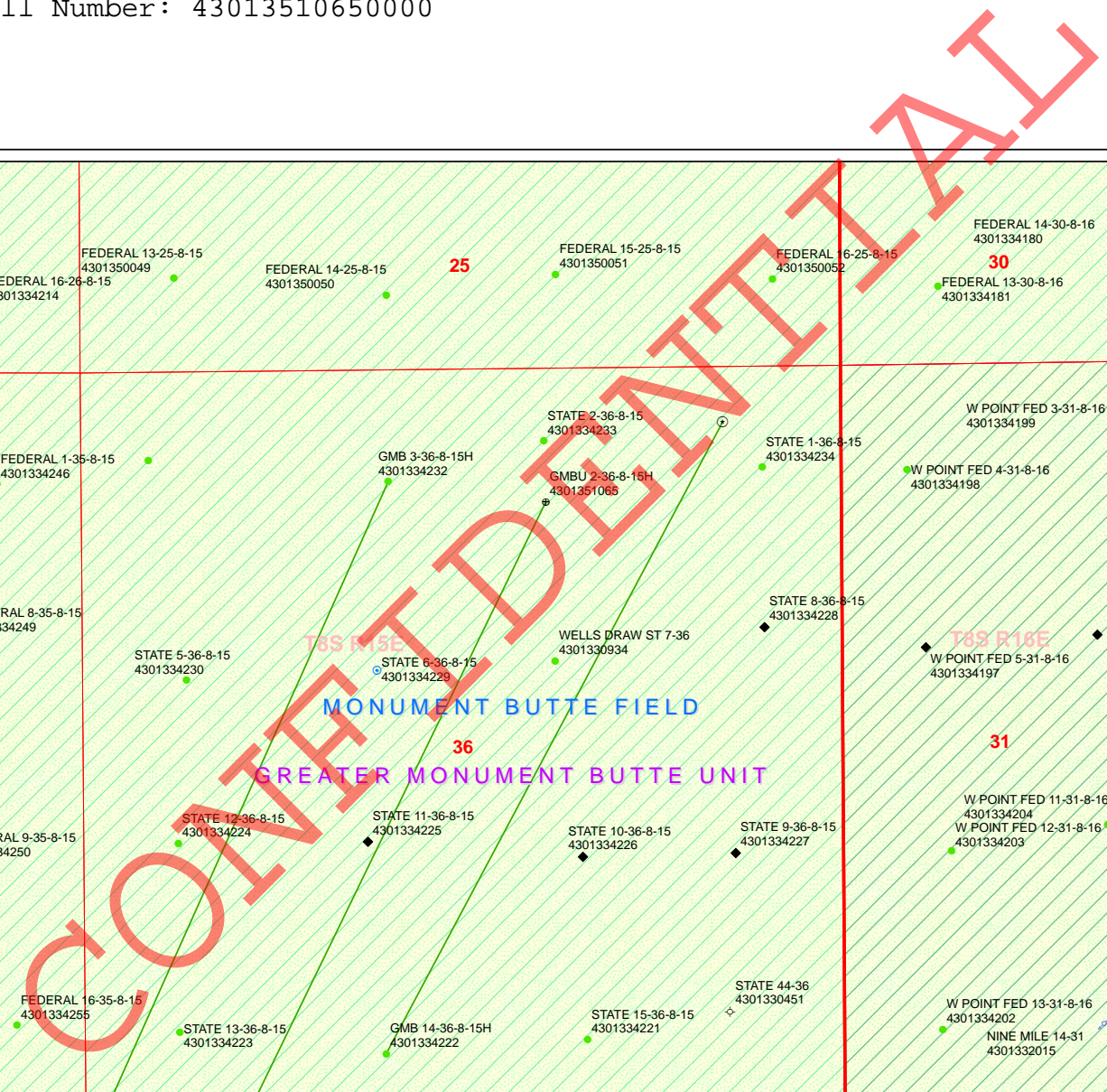
PROPOSED ACCESS  
ROAD (Max. 6% Grade)



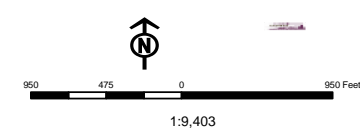
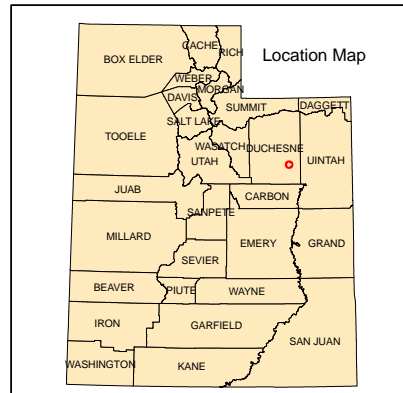
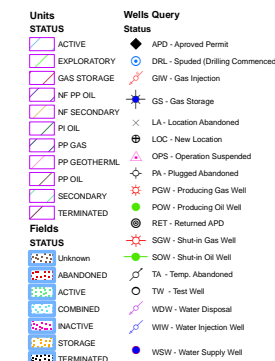
SURVEYED BY: S.V.	DATE SURVEYED: 09-12-11	VERSION:
DRAWN BY: F.T.M.	DATE DRAWN: 09-16-11	V1
SCALE: 1" = 60'	REVISED:	

**Tri State** (435) 781-2501  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

RECEIVED: November 17, 2011



Map Produced by Diana Mason



## Diana Mason - APD Approvals for GMBU

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**From:** Diana Mason  
**Subject:** APD Approvals for GMBU

---

United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160  
(UT-922)

November 18, 2011

Memorandum

**To:** Assistant District Manager Minerals, Vernal District  
**From:** Michael Coulthard, Petroleum Engineer  
**Subject:** 2011 Plan of Development Greater Monument Butte Unit, Duchesne and Uintah Counties, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Greater Monument Butte Unit, Duchesne and Uintah Counties, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ GREEN RIVER)		
43-013-51046	GMBU Q-4-9-17 Sec 04 T09S R17E 1916 FSL 0494 FWL BHL Sec 04 T09S R17E 1321 FSL 1846 FWL	
43-013-51047	GMBU S-4-9-17 Sec 04 T09S R17E 2050 FSL 1960 FEL BHL Sec 04 T09S R17E 1049 FSL 1089 FEL	
43-013-51048	GMBU O-4-9-17 Sec 04 T09S R17E 1712 FNL 1222 FWL BHL Sec 04 T09S R17E 2505 FNL 0125 FWL	
43-013-51049	GMBU J-5-9-17 Sec 04 T09S R17E 1708 FNL 1243 FWL BHL Sec 05 T09S R17E 1138 FNL 0118 FEL	
43-013-51050	GMBU I-5-9-17 Sec 05 T09S R17E 1796 FNL 0627 FEL BHL Sec 05 T09S R17E 1228 FNL 1387 FEL	
43-013-51051	GMBU L-5-9-17 Sec 05 T09S R17E 1810 FNL 0643 FEL BHL Sec 05 T09S R17E 2385 FSL 1656 FEL	

43-013-51052 GMBU D-9-9-17 Sec 04 T09S R17E 0776 FSL 0686 FWL  
BHL Sec 09 T09S R17E 0135 FNL 1473 FWL

43-013-51065 GMBU 2-36-8-15H Sec 36 T08S R15E 0934 FNL 2061 FEL  
Lateral 1 Sec 36 T08S R15E 0190 FSL 1180 FWL

43-047-52190 GMBU 2-36-8-17H Sec 36 T08S R17E 0649 FNL 1667 FEL  
BHL Sec 36 T08S R17E 0100 FSL 1250 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Greater Monument Butte Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:11-18-11

-----Original Message-----

From: Diana Mason [<mailto:dianawhitney@utah.gov>]

Sent: Tuesday, November 22, 2011 7:26 AM

To: Coulthard, Michael L

Subject: Fwd: APD Approvals

Oops sorry..Forgot some

11/7/20114899 43013510500000 NEWFIELD GMBU I-5-9-17DUCHESNE  
11/7/20114900 43013510510000 NEWFIELD GMBU L-5-9-17DUCHESNE  
11/7/20114901 43013510520000 NEWFIELD GMBU D-9-9-17DUCHESNE

>>> Diana Mason 11/22/2011 7:23 AM >>>  
Hi Mickey,

Do you have an approval for the following APDs?

11/7/20114894 43013510460000 NEWFIELD GMBU Q-4-9-17DUCHESNE  
11/7/20114895 43013510470000 NEWFIELD GMBU S-4-9-17DUCHESNE  
11/7/20114896 43013510480000 NEWFIELD GMBU O-4-9-17DUCHESNE  
11/7/20114897 43013510490000 NEWFIELD GMBU J-5-9-17DUCHESNE

Thank you,  
Diana

Well Name	NEWFIELD PRODUCTION COMPANY GMBU 2-36-8-15H 4301351065			
String	Surf	Prod	P2	
Casing Size(in)	8.625	5.500	4.500	
Setting Depth (TVD)	300	6256	6111	
Previous Shoe Setting Depth (TVD)	0	300	6256	
Max Mud Weight (ppg)	8.3	9.0	9.0	
BOPE Proposed (psi)	0	2000	2000	
Casing Internal Yield (psi)	2950	9190	10690	
Operators Max Anticipated Pressure (psi)	2628		8.3	

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	129	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	93	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	63	NO OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	63	NO OK
Required Casing/BOPE Test Pressure=		300	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

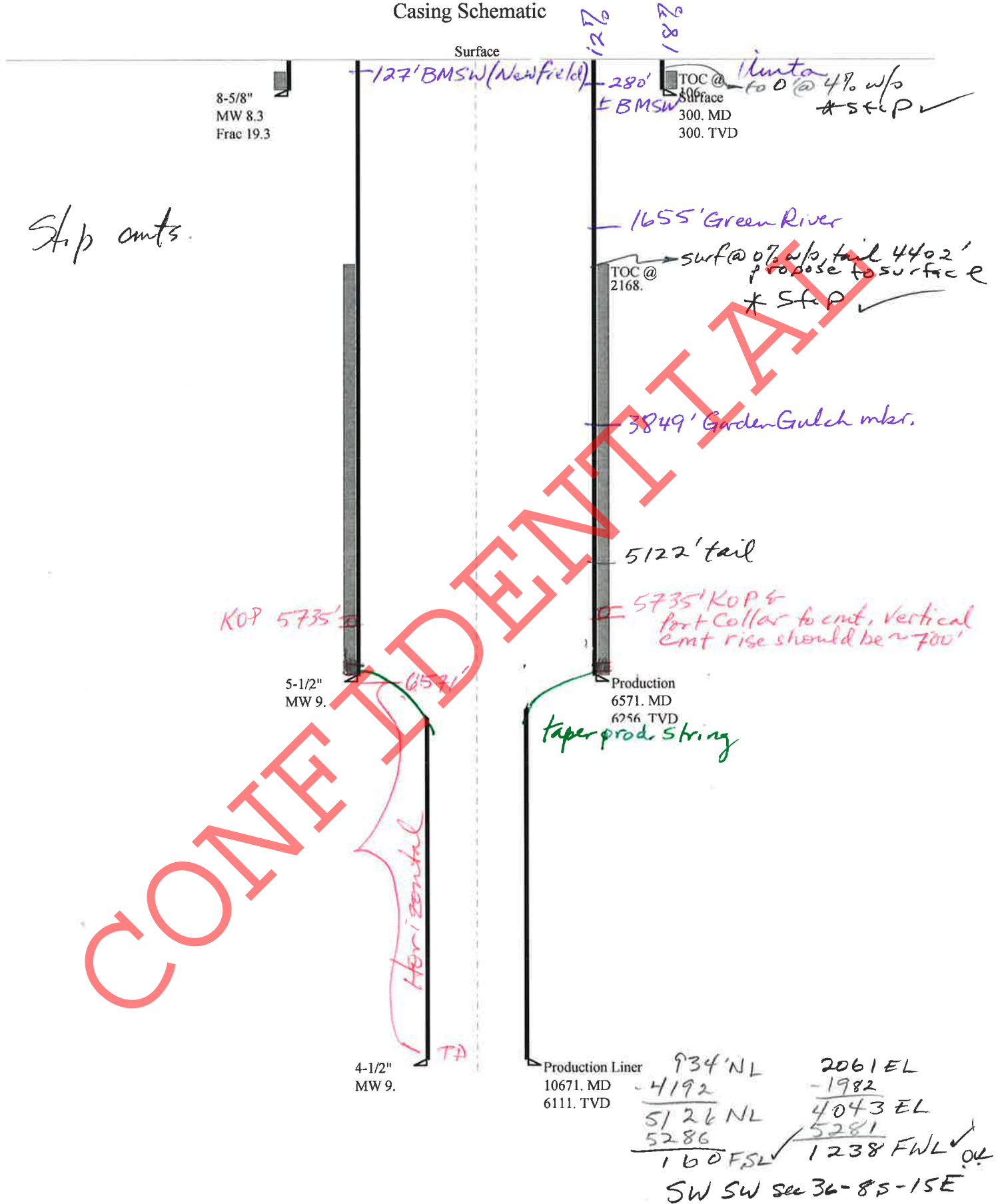
Calculations	Prod String	5.500	"
Max BHP (psi)	.052*Setting Depth*MW=	2928	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	2177	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1552	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	1618	NO Reasonable for area
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		300	psi *Assumes 1psi/ft frac gradient

Calculations	P2 String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	2860	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	2127	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1516	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	2892	YES
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		6256	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

# 43013510650000 GMBU 2-36-8-15H

## Casing Schematic



Well name:	<b>43013510650000 GMBU 2-36-8-15H</b>	
Operator:	<b>NEWFIELD PRODUCTION COMPANY</b>	
String type:	Surface	Project ID: 43-013-51065
Location:	DUCHESNE COUNTY	

**Design parameters:****Collapse**

Mud weight: 8.330 ppg  
Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 78 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

Cement top: 106 ft

**Burst**

Max anticipated surface pressure: 264 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 300 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.70 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on air weight.  
Neutral point: 262 ft

**Non-directional string.****Re subsequent strings:**

Next setting depth: 6,111 ft  
Next mud weight: 9.000 ppg  
Next setting BHP: 2,857 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 300 ft  
Injection pressure: 300 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	300	8.625	24.00	J-55	ST&C	300	300	7.972	1544
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	130	1370	10.553	300	2950	9.83	7.2	244	33.89 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: February 7, 2012  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 300 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013510650000 GMBU 2-36-8-15H</b>	
Operator:	<b>NEWFIELD PRODUCTION COMPANY</b>	
String type:	Production	Project ID: 43-013-51065
Location:	DUCHESNE COUNTY	

**Design parameters:****Collapse**

Mud weight: 9.000 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 162 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,000 ft

Cement top: 2,168 ft

**Burst**

Max anticipated surface pressure: 1,548 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 2,925 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.60 (B)

Tension is based on air weight.  
 Neutral point: 5,403 ft

**Directional Info - Build & Hold**

Kick-off point 5735 ft  
 Departure at shoe: 539 ft  
 Maximum dogleg: 11 °/100ft  
 Inclination at shoe: 91.96 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	6571	5.5	20.00	N-80	LT&C	6256	6571	4.653	43585

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2925	8339	2.851	2925	9190	3.14	125.1	428	3.42 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: February 7, 2012  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 6256 ft, a mud weight of 9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	<b>43013510650000 GMBU 2-36-8-15H</b>	
Operator:	<b>NEWFIELD PRODUCTION COMPANY</b>	
String type:	Production Liner	Project ID: 43-013-51065
Location:	DUCHESNE COUNTY	

**Design parameters:****Collapse**

Mud weight: 9.000 ppg  
Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 160 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

**Burst**

Max anticipated surface pressure: 1,513 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 2,857 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on air weight.  
Neutral point: 0 ft

Liner top: 6,571 ft

**Directional Info - Build & Hold**

Kick-off point: 5735 ft  
Departure at shoe: 4636 ft  
Maximum dogleg: 0 °/100ft  
Inclination at shoe: 92.02 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	4071	4.5	11.60	P-110	LT&C	6111	10671	3.875	19614
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2857	7580	2.653	2889	10690	3.70	-1.7	279	99.99 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: February 7, 2012  
Salt Lake City, Utah

**Remarks:**

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 6111 ft, a mud weight of 9 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

**From:** Jim Davis  
**To:** APD APPROVAL  
**CC:** mcrozier@newfield.com; teaton@newfield.com  
**Date:** 2/28/2012 12:57 PM  
**Subject:** Two APD approvals for Newfield

The following wells have been approved by SITLA including arch and paleo clearance.

4301351065 GMBU 2-36-8-15H  
4304752190 GMBU 2-36-8-17H

-Jim

Jim Davis  
Utah Trust Lands Administration  
jimdavis1@utah.gov  
Phone: (801) 538-5156

CONFIDENTIAL

# **ON-SITE PREDRILL EVALUATION**

## **Utah Division of Oil, Gas and Mining**

**Operator** NEWFIELD PRODUCTION COMPANY  
**Well Name** GMBU 2-36-8-15H  
**API Number** 43013510650000 **APD No** 4923 **Field/Unit** MONUMENT BUTTE  
**Location: 1/4,1/4** NWNE **Sec** 36 **Tw** 8.0S **Rng** 15.0E 934 FNL 2061 FEL  
**GPS Coord (UTM)** 570052 4436865 **Surface Owner**

### **Participants**

Tim Eaton- Newfield Exploration, Mark Jones- DOGM, Chris Jensen- DOGM, Forrest Bird - DOGM

### **Regional/Local Setting & Topography**

this location is approximately 11.7 miles Southwest of Myton, Utah nearly 1 mile East of the Ouray Indian reservation boundary.

### **Surface Use Plan**

#### **Current Surface Use**

Wildlfe Habitat

#### **New Road**

**Miles**

0.048

#### **Well Pad**

**Width** 200 **Length** 400

#### **Src Const Material**

Onsite

#### **Surface Formation**

UNTA

**Ancillary Facilities** N

### **Waste Management Plan Adequate?**

Y

### **Environmental Parameters**

**Affected Floodplains and/or Wetlands** N

#### **Flora / Fauna**

salt brush and russian thistle.

No wildlife observed during investigations. Antelope, rabbit and prairie dogs are known to inhabit the area

#### **Soil Type and Characteristics**

gravely, silty sand

#### **Erosion Issues** Y

soil type is erodable

#### **Sedimentation Issues** Y

sediments can be transported to drainage areas bounding 2 sides of the pad

**Site Stability Issues** N

#### **Drainage Diverson Required?** N

pad is very near drainage but not inside of areas observed to be gullied or rilled

**Berm Required? Y****Erosion Sedimentation Control Required? Y**

berming and other BMP's to be utilized as needed to control erosion and sedimentation to nearby drainages

**Paleo Survey Run? Y    Paleo Potential Observed? N    Cultural Survey Run? Y    Cultural Resources? N****Reserve Pit****Site-Specific Factors****Site Ranking**

<b>Distance to Groundwater (feet)</b>	100 to 200	5
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>	300 to 1320	10
<b>Native Soil Type</b>	High permeability	20
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>	10 to 20	5
<b>Affected Populations</b>		
<b>Presence Nearby Utility Conduits</b>	Not Present	0
<b>Final Score</b>		45    1 Sensitivity Level

**Characteristics / Requirements**

reserve pit is proposed to be 60 x 100 approximately 8 feet deep. Pit is located very near a drainage area. Care to be taken during construction and pit is to be lined

**Closed Loop Mud Required? N    Liner Required? Y    Liner Thickness 16    Pit Underlayment Required? N****Other Observations / Comments**Chris Jensen  
Evaluator12/7/2011  
Date / Time

# Application for Permit to Drill Statement of Basis

2/29/2012

Utah Division of Oil, Gas and Mining

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Owner</b>	<b>CBM</b>
4923	43013510650000	SITLA	OW	S	No
<b>Operator</b>	NEWFIELD PRODUCTION COMPANY		<b>Surface Owner-APD</b>		
<b>Well Name</b>	GMBU 2-36-8-15H		<b>Unit</b>	GMBU (GRRV)	
<b>Field</b>	MONUMENT BUTTE		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWNE 36 8S 15E S 934 FNL (UTM) 570052E 4436865N		2061 FEL GPS Coord		

**Geologic Statement of Basis**

Newfield proposes to set 300' of surface casing at this location. The base of the moderately saline water at this location is estimated to be at a depth of 280'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of section 36. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect ground water in this area.

 Brad Hill  
**APD Evaluator**

 1/18/2012  
**Date / Time**
**Surface Statement of Basis**

The pad is bounded by a deep drainage area to the north and east. The proposed location for the reserve pit is very near ( but is not within) the gullying of said drainage. Corner 7 is nearest any steep portion. Reserve pit is planned with a separation of 30 feet from that point. The location should be bermed to prevent spills from leaving the confines of the pad. Fencing around the reserve pit will be necessary once the well is drilled to prevent wildlife and livestock from becoming a problem. Drainages should be diverted around and away from wellpad and access road. A synthetic liner of 16 mils (minimum) should be utilized in the reserve pit.

 Chris Jensen  
**Onsite Evaluator**

 12/7/2011  
**Date / Time**
**Conditions of Approval / Application for Permit to Drill**

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.

**RECEIVED:** February 29, 2012

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 11/17/2011

API NO. ASSIGNED: 43013510650000

WELL NAME: GMBU 2-36-8-15H

OPERATOR: NEWFIELD PRODUCTION COMPANY (N2695)

PHONE NUMBER: 435 646-4825

CONTACT: Mandie Crozier

PROPOSED LOCATION: NWNE 36 080S 150E

Permit Tech Review: ☒

SURFACE: 0934 FNL 2061 FEL

Engineering Review: ☒

BOTTOM: 0190 FSL 1180 FWL

Geology Review: ☒

COUNTY: DUCHESNE

LATITUDE: 40.07914

LONGITUDE: -110.17839

UTM SURF EASTINGS: 570052.00

NORTHINGS: 4436865.00

FIELD NAME: MONUMENT BUTTE

LEASE TYPE: 3 - State

LEASE NUMBER: ML-21835

PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 3 - State

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: STATE/FEE - B001834☐ Potash☐ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: 437478☐ RDCC Review:☐ Fee Surface Agreement☐ Intent to Commingle

Commingle Approved

## LOCATION AND SITING:

☐ R649-2-3.

Unit: GMBU (GRRV)

☐ R649-3-2. General☐ R649-3-3. Exception☒ Drilling Unit

Board Cause No: Cause 213-11

Effective Date: 11/30/2009

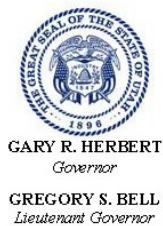
Siting: Suspends General Siting

☐ R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhill  
12 - Cement Volume (3) - ddoucet  
25 - Surface Casing - hmacdonald  
27 - Other - bhill  
28 - Other2 - bhill

RECEIVED: February 29, 2012



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

### Permit To Drill

\*\*\*\*\*

**Well Name:** GMBU 2-36-8-15H

**API Well Number:** 43013510650000

**Lease Number:** ML-21835

**Surface Owner:** STATE

**Approval Date:** 2/29/2012

**Issued to:**

NEWFIELD PRODUCTION COMPANY , Rt 3 Box 3630 , Myton, UT 84052

**Authority:**

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 213-11. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

**Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

**General:**

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

**Conditions of Approval:**

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Production casing cement shall be brought up to or above the top of the unitized interval for the Greater Monument Butte Unit (Cause No. 213-11).

Surface casing shall be cemented to the surface.

Cement volume for the 5 1/2" production string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to surface as indicated in the submitted drilling plan.

In accordance with Utah Admin. R.649-3-21, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

**Additional Approvals:**

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well contact Carol Daniels

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

**Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-231-8956 - after office hours

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

**Approved By:**

API Well No: 43013510650000

**Approved By:**

A handwritten signature in black ink, appearing to read 'J. Rogers', written in a cursive style.

For John Rogers  
Associate Director, Oil & Gas

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BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Ross 26 Submitted By  
Branden Arnold Phone Number 435-401-0223  
Well Name/Number GMBU 2-36-8-15H  
Qtr/Qtr NW/NE Section 36 Township 8S Range 15E  
Lease Serial Number ML-21835  
API Number 43-013-51065

Spud Notice – Spud is the initial spudding of the well, not drilling  
out below a casing string.

Date/Time 5/22/12 9:00 AM ☒ PM ☐

Casing – Please report time casing run starts, not cementing  
times.

- ☒ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

RECEIVED

MAY 22 2012

DIV. OF OIL, GAS & MINING

Date/Time 5/22/12 3:00 AM ☐ PM ☒

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time \_\_\_\_\_ AM ☐ PM ☐

Remarks \_\_\_\_\_

---

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BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Capstar# 328  
Submitted By Jesse Tatman / Alvin Nielsen Phone  
Number 970-812-0015  
Well Name/Number GMBU 2-36-8-15H  
Qtr/Qtr NW/NE Section 36 Township 8S Range 15E  
Lease Serial Number ML 21835  
API Number 43-013-510650000

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time \_\_\_\_\_ AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☐ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

Date/Time \_\_\_\_\_ AM ☐ PM ☐

BOPE

- ☒ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

RECEIVED

MAY 30 2012

DIV. OF OIL, GAS & MINING

Date/Time 5/29/2012 15:00 AM ☐ PM ☒

Remarks Capstar# 328 will be moving from the GMBU 2A-32T-8-17H to the GMBU 2-36-8-15H. Should be testing Bops by 15:00 hrs on 5/29/2012

---

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
ENTITY ACTION FORM - FORM 6

OPERATOR: **NEWFIELD PRODUCTION COMPANY**  
ADDRESS: **RT. 3 BOX 3630**  
**MYTON, UT 84052**

OPERATOR ACCT. NO. **N2695**

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	99999	17400	4301350492	GMBU E-17-9-17	SESE	7	9S	17E	DUCHESNE	5/24/2012	6/14/12
WELL 1 COMMENTS: GRRV BHL: S17 hwnw											
B	99999	17400	4301350493	GMBU B-18-9-17	SESE	7	9S	17E	DUCHESNE	5/24/2012	6/14/12
GRRV BHL: S18 hwnw											
B	99999	17400	4301350829	GMBU B-32-8-17	SWSE	29	8S	17E	DUCHESNE	5/30/2012	6/14/12
GRRV BHL: S32 nene											
B	99999	17400	4301350830	GMBU C-32-8-17	SWSE	29	8S	17E	DUCHESNE	5/30/2012	6/14/12
GRRV BHL S32 hwnw											
B	99999	17400	4301351065	GMBU 2-36-8-15H	NWNE	36	8S	15E	DUCHESNE	5/22/2012	6/14/12
GRRV BHL SWSW											

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ACTION CODES (See instructions on back of form)

- A - new entity for new well (single well only)
- B - well to existing entity (group or unit well)
- C - from one existing entity to another existing entity
- D - well from one existing entity to a new entity
- E - other (explain in comments section)

RECEIVED

JUN 06 2012

Div. of Oil, Gas & Mining

*Tabitha Timothy*  
Signature

Tabitha Timothy

Production Clerk

05/30/12

NOTE: Use COMMENT section to explain why each Action Code was selected.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21835
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630, Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> GMBU 2-36-8-15H
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0934 FNL 2061 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNE Section: 36 Township: 08.0S Range: 15.0E Meridian: S		<b>9. API NUMBER:</b> 43013510650000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: <b>6/7/2012</b>  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION         </div> <div style="width: 33%;"> <input checked="" type="checkbox"/> <b>ALTER CASING</b>  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input type="checkbox"/> OTHER         </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input type="checkbox"/> APD EXTENSION            OTHER: <input style="width: 100px;" type="text"/> </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  Newfield respectfully requests to change the cement design on the GMBU 2-36-8-15H. The change in design is in the horizontal portion of the well. The open hole completion system that was originally planned with be replaced by a cement slurry throughout the entire lateral. Cement will be brought back to surface. The well will be drilled horizontally as previously submitted. An updated drilling plan is attached documenting the changes mentioned above.		
<b>NAME (PLEASE PRINT)</b> Mandie Crozier		<b>PHONE NUMBER</b> 435 646-4825
<b>SIGNATURE</b> N/A		<b>TITLE</b> Regulatory Tech  <b>DATE</b> 6/7/2012

**Newfield Production Company**  
**GMBU 2-36-8-15H**  
**NW/NE Sec 36 T8S R15E**  
**Duchesne County, UT**

**Drilling Program**

**1. Formation Tops**

Uinta	surface
Green River	1,655'
Garden Gulch member	3,849'
TD	6,111' TVD / 10,671' MD

**2. Depth to Oil, Gas, Water, or Minerals**

Base of moderately saline	127'	(water)
Green River	3,849' - 6,111'	(oil)

**3. Pressure Control**

Section                      BOP Description

Surface                      No control

Production                The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 2M system.

A 2M BOP system will consist of 2 ram preventers (double or two singles), and a rotating head. A choke manifold rated to at least 2,000 psi will be used.

**4. Casing**

Description	Interval		Weight (ppf)	Grade	Coupl	Pore Press @ Shoe	MW @ Shoe	Frac Grad @ Shoe	Safety Factors		
	Top	Bottom (TVD/MD)							Burst	Collapse	Tension
Surface 8 5/8	0'	500'	24	J-55	STC	8.33	8.33	12	2,950	1,370	244,000
									10.52	8.61	20.33
Production 5 1/2	0'	10,671' 6,571'	20	N-80	LTC	8.33	9.0	--	9,190	8,830	428,000
									2.58	2.25	2.01
Production 4 1/2	6,571'	6,111' 10,671'	11.6	P-110	BTC	8.33	9.0	--	10,690	7,560	279,000
									5.25	3.36	5.27

A tapered string of production casing will be run. A 7-7/8" hole will be drilled for the 5-1/2" casing in the vertical and curve sections of the well. A 6-1/8" hole will be drilled for the 4-1/2" casing in the lateral section of the well.

Assumptions:

Surface casing MASP = (frac gradient + 1.0 ppg) - (gas gradient)

Production casing MASP = (reservoir pressure) - (gas gradient)

All collapse calculations assume fully evacuated casing with a gas gradient

All tension calculations assume air weight of casing

Gas gradient = 0.1 psi/ft

All casing shall be new.

All casing strings shall have a minimum of 1 centralizer on each of the bottom 3 joints.

## 5. Cement

Job	Hole Size	Fill	Slurry Description	ft <sup>3</sup>	OH excess	Weight (ppg)	Yield (ft <sup>3</sup> /sk)
				sacks			
Surface	12 1/4	500'	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	237	15%	15.8	1.17
				203			
Production Lead	7 7/8	3,849'	Premium Lite II w/ 3% KCl + 10% bentonite	767	15%	11.0	3.53
				217			
Production Tail	7 7/8	6,822'	50/50 Poz/Class G w/ 3% KCl + 2% bentonite	1359	15%	14.3	1.24
				1096			

The surface casing will be cemented to surface. In the event that cement does not reach surface during the primary cement job, a remedial job will be performed.

The production string will be cemented throughout the lateral and cement will be brought to surface

Actual cement volumes for the production casing string will be calculated from an open hole caliper log, plus 15% excess.

## 6. Type and Characteristics of Proposed Circulating Medium

<u>Interval</u>	<u>Description</u>
Surface - 500'	An air and/or fresh water system will be utilized. If an air rig is used, the blooie line discharge may be less than 100' from the wellbore in order to minimize location size. The blooie line is not equipped with an automatic igniter. The air compressor may be located less than 100' from the well bore due to the low possibility of combustion with the air/dust mixture. Water will be on location to be used as kill fluid, if necessary.
500' - TD	A water based mud system will be utilized. Hole stability may be improved with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and if conditions warrant, with barite. Anticipated maximum mud weight is 9.0 ppg.

## 7. Logging, Coring, and Testing

Logging: A dual induction, gamma ray, and caliper log will be run from TD to the base of the surface casing. A compensated neutron/formation density log will be run from TD to the top of the Garden Gulch formation. A Gamma Ray log will be run from TD to surface.

A cement bond log will be run from the port collar to the cement top behind the production casing. (cemented interval)

Cores: As deemed necessary.

DST: There are no DST's planned for this well.

## **8. Anticipated Abnormal Pressure or Temperature**

Maximum anticipated bottomhole pressure will be approximately equal to total depth (feet) multiplied by a 0.43 psi/ft gradient.

$$10,671' \times 0.43 \text{ psi/ft} = 4622 \text{ psi}$$

No abnormal temperature is expected. No H<sub>2</sub>S is expected.

## **9. Other Aspects**

The well will be drilled vertically to a kick-off point of 5,735' .

Directional tools will then be used to build to 92.02 degrees inclination.

The hole size in the lateral will be reduced to 6-1/8". The lateral will be drilled to the bottomhole location shown on the plat.

A tapered string of production casing will be run in the well, with 5-1/2" casing in the vertical and curve portions and 4-1/2" casing in the lateral portion.

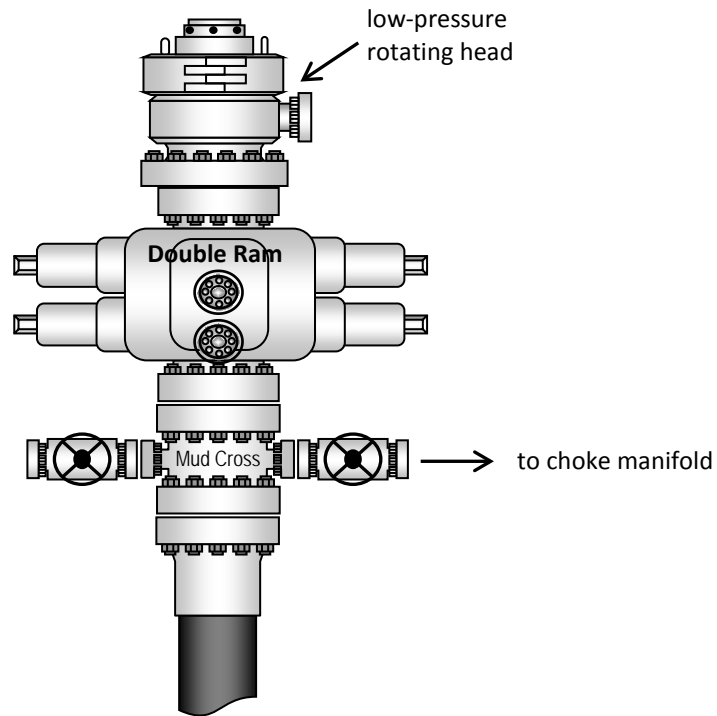
The lateral will be cemented to provide multi-stage frac isolation.

Newfield requests the following Variances from Onshore Order # 2:

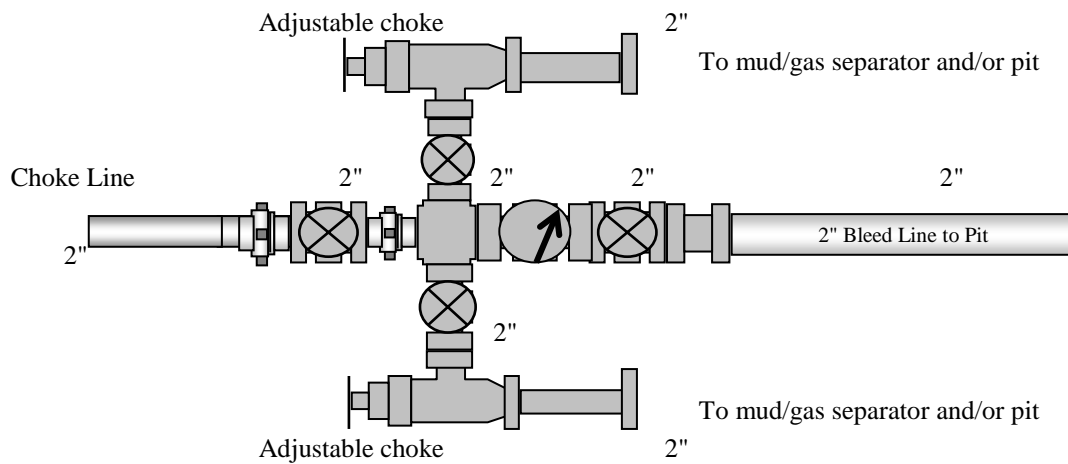
- Variance from Onshore Order 2, III.E.1

Refer to Newfield Production Company Standard Operating Practices "Ute Tribal Green River Development Program" paragraph 9.0

### Typical 2M BOP stack configuration



### Typical 2M Choke Manifold Configuration



STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NUMBER: UTAH STATE WIL-24825
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: GMBU
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052		7. UNIT or CA AGREEMENT NAME: GMBU
4. LOCATION OF WELL: FOOTAGES AT SURFACE:		8. WELL NAME and NUMBER: GMBU 2-36-8-15H
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: , 36, T8S, R15E		9. API NUMBER: 4301351065
		10. FIELD AND POOL, OR WILDCAT: GREATER MB UNIT
		COUNTY: DUCHESNE
		STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will _____	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION (START/STOP) <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARITLY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLAIR <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input checked="" type="checkbox"/> OTHER: - Spud Notice
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion: 05/23/2012			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On 5/22/12 MIRU Ross #29. Spud well @10:00 AM. Drill 515' of 12 1/4" hole with air mist. TIH W/ 12 Jt's 8 5/8" J-55 24# csgn. Set @ 516.37. On 5/23/12 cement with 235 sks of class "G" w/ 2% CaCL2 + 0.25#/sk Cello- Flake Mixed @ 15.8ppg w/ 1.17ft3/sk yield. Returned 8 barrels cement to pit. WOC.

RECEIVED  
JUL 03 2012  
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Branden Arnold TITLE  
SIGNATURE *Branden Arnold* DATE 05/24/2012

## Casing / Liner Detail

**Well** GMBU 2-36-8-15H  
**Prospect** Monument Butte  
**Foreman**  
**Run Date:**  
**String Type** Surface, 8.625", 24#, J-55, STC (Generic)

### - Detail From Top To Bottom -

Depth	Length	JTS	Description	OD	ID
516.37			13' KB		
516.95	1.42		Wellhead		
518.37	-2.00	-1	Cutt Off	8.625	
13.00	460.75	12	8 5/8 Casing	8.625	
473.75	42.30	1	Shoe Joint	8.625	
516.05	0.90	1	Guide Shoe	8.625	
516.37			-		

### Cement Detail

<b>Cement Company:</b> BJ					
Slurry	# of Sacks	Weight (ppg)	Yield	Volume (ft³)	Description - Slurry Class and Additives
Slurry 1	235	15.8	1.17	274.95	Class G+2%kcl+.25#CF

Stab-In-Job?	No
BHT:	0
Initial Circulation Pressure:	
Initial Circulation Rate:	
Final Circulation Pressure:	
Final Circulation Rate:	
Displacement Fluid:	Water
Displacement Rate:	
Displacement Volume:	29.3
Mud Returns:	
Centralizer Type And Placement:	

Middle of first, top of second and third for a total of three.

Cement To Surface?	Yes
Est. Top of Cement:	0
Plugs Bumped?	Yes
Pressure Plugs Bumped:	483
Floats Holding?	No
Casing Stuck On / Off Bottom?	No
Casing Reciprocated?	No
Casing Rotated?	No
CIP:	14:03
Casing Wt Prior To Cement:	
Casing Weight Set On Slips:	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-21835
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)
1. TYPE OF WELL Oil Well		8. WELL NAME and NUMBER: GMBU 2-36-8-15H
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		9. API NUMBER: 43013510650000
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0934 FNL 2061 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 36 Township: 08.0S Range: 15.0E Meridian: S		COUNTY: DUCHESNE
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/29/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK	
	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input type="text"/>	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The above well was placed on production on 7/29/2012 at 13:30 hours. Production Start Sundry resent 10/05/2012.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 October 05, 2012

NAME (PLEASE PRINT) Kaci Deveraux	PHONE NUMBER 435 646-4867	TITLE Production Technician
SIGNATURE N/A		DATE 10/5/2012

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>			
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-21835			
1. TYPE OF WELL Oil Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)			
3. ADDRESS OF OPERATOR: Rt 3 Box 3630, Myton, UT, 84052		8. WELL NAME and NUMBER: GMBU 2-36-8-15H			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0934 FNL 2061 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 36 Township: 08.0S Range: 15.0E Meridian: S		9. API NUMBER: 43013510650000			
10. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE			
TYPE OF SUBMISSION  <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:  <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/29/2012	TYPE OF ACTION  <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ACIDIZE   <input type="checkbox"/> CHANGE TO PREVIOUS PLANS   <input type="checkbox"/> CHANGE WELL STATUS   <input type="checkbox"/> DEEPEN   <input type="checkbox"/> OPERATOR CHANGE   <input checked="" type="checkbox"/> PRODUCTION START OR RESUME   <input type="checkbox"/> REPERFORATE CURRENT FORMATION   <input type="checkbox"/> TUBING REPAIR   <input type="checkbox"/> WATER SHUTOFF   <input type="checkbox"/> WILDCAT WELL DETERMINATION         </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ALTER CASING   <input type="checkbox"/> CHANGE TUBING   <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS   <input type="checkbox"/> FRACTURE TREAT   <input type="checkbox"/> PLUG AND ABANDON   <input type="checkbox"/> RECLAMATION OF WELL SITE   <input type="checkbox"/> SIDETRACK TO REPAIR WELL   <input type="checkbox"/> VENT OR FLARE   <input type="checkbox"/> SI TA STATUS EXTENSION   <input type="checkbox"/> OTHER         </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> CASING REPAIR   <input type="checkbox"/> CHANGE WELL NAME   <input type="checkbox"/> CONVERT WELL TYPE   <input type="checkbox"/> NEW CONSTRUCTION   <input type="checkbox"/> PLUG BACK   <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION   <input type="checkbox"/> TEMPORARY ABANDON   <input type="checkbox"/> WATER DISPOSAL   <input type="checkbox"/> APD EXTENSION           OTHER: <input style="width: 100%;" type="text"/> </td> </tr> </table>		<input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input checked="" type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input type="checkbox"/> APD EXTENSION  OTHER: <input style="width: 100%;" type="text"/>
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NAME (PLEASE PRINT) Kaci Deveraux		PHONE NUMBER 435 646-4867			
SIGNATURE N/A		TITLE Production Technician			
DATE 10/5/2012					

## Daily Activity Report

Format For Sundry

**GMBU 2-36-8-15H**

**5/1/2012 To 9/30/2012**

**7/4/2012 Day: 1**

**Completion**

Stone #8 on 7/4/2012 - Nu Frac Valve 5K Bop Stack CBL - Saftey Meeting JSA MINU 7 1/16 10K frac Valve ,function test ,NU 7 1/16 10K x 5K crossover Spool ,7 1/16 Shafer BOP dressed 2 Sets 2 3/8 pipe rams function test ,NU 7 1/16 flow crross w/ 2 2 1/16 5K Valves on each side Srew in 2 3/8 n-80 4.7# test sub into hanger shut and test #1 pipe rams leak in well head packing glands fix Retest # 1 rams 250 low 4800 high good test , test #2 rams 250 low 4800 high Good test ,test inside Kill valvle 250 low 4800 high good test, test out side kill valve 250 low 4800 high , test pit side inside flow line valve 250 low 4800 high good test,test out side pit side valve 250 low 4800 high good test ,test loc side inside flow line valve 250 low 4800 high good test, test outside loc side valve 250 low 4800 high good test Ru perforators Wireline,MI Spot Frac Tanks , - Safety meeting JSA RU wire test lubricator 250 low 4800 high good test, Rih W CCL/GR/CBL Tool String To 6456, Log From 6381.5 to Surface,Secure well SDFN

**Daily Cost:** \$0

**Cumulative Cost:** \$28,623

**7/5/2012 Day: 2**

**Completion**

Stone #8 on 7/5/2012 - Pressure test csg. MIRUSU. Spot pipe racks & hydraulic catwalk. Talley & PU BHA for perforating & 187- jts PH-6 5.95# tbg. - Talley & PU BHA & Tbg as follows: 3 3/4" bear claw bit, bit sub, Bypassing abrasive perforator w/ 3 ports 120° phase, hydraulic disconnect, dual back pressure valve, X-over sub, 1- jt 2 3/8" PH6 5.95# tbg, R profile nipple, 148- jts 2 3/8" PH-6 5.95# tbg, R profile nipple, 39- jts 2 3/8" PH-6 5.95# tbg. Fill tbg plus 5 BW after each 1000' of tbg. EOT @ 5930'. SWIFN. - Talley tbg. RU flowback line to pit for displacement. - RU hot oil truck & pressure test unit. Pressure csg w/ hot oil unit to 4500 psi. Pressure csg w/ test unit to 9900 psi. Held pressure test for 30 minutes. Bleed pressure off csg. - RU WOR. Spot pipe racks & hydraulic cat walk. - Unload tbg & NU Washington head.

**Daily Cost:** \$0

**Cumulative Cost:** \$48,438

**7/6/2012 Day: 3**

**Completion**

Stone #8 on 7/6/2012 - Continue PU tbg. Tag fill @ 10,343'. Clean out to 10,475'. Pump 50 bbl polymer sweep & circulate well clean w/ 360 BW. Abrasive perforate stage 1. Circulate well clean. LD 90- jts tbg. - LD -90 jts 2 3/8" 5.95# PH-6 tbg. (Continue LD tbg, need 120- jts out to pump next polymer sweep & circulate well clean) - TIH to PBTD @ 10,475'. Drop ball to shift by-pass on abrasive perforator to open direction of flow through bit. Pump 72 BW down tbg, attempting to seat ball. Did not see ball seat. Drop second ball to shift by-pass. Pump 8 BW and ball seated. Circulate well clean w/ 360 BW (last 80 bbls treated w/ Alpha 452 @ 1 gpt & Claycare @ 1 gpt) w/ ave rate of 4.7 BPM & ave tbg pressure of 6100 psi. - Pump ball down & seat w/ 36 BW. Pump 3 abrasive sand slurries of 800#s sand each @ 1/2 PPG totaling 38 bbls each @ rate of 2.0 BPM, 6471 psi. PUH & abrasive perforate stage 1 @ 10,465', PUH 5' and perf @ 10460', PUH 5' & perf @ 10,455' w/ 3 SPF 120° phasing. Held 1500 psi back pressure on tbg-csg annulus during abrasive perforating. - Held safety meeting w/ rig crew, Baker Hughes pressure pump crew, TTS & RNI. Discussing use of hydraulic catwalk, working around pressure, smoking polycys, use of ground guides & PPE. Continue PU tbg, total of 328-

jts 2 3/8" 5.95# PH-6 tbg. Tag fill @ 10,343'. Fill tbg after each 1000' ran & perform weight checks. Weight check on bottom- 28K PU & 18K SO. - Mix & pump 50 bbl polymer sweep. Circulate well clean w/ 360 BW w/ ave rate of 4.7 BPM & ave pressure 4100 psi. Rotating tbg @ 130 RPMs & reciprocating while circulating. - Clean out to PBTD @ 10,475' (20' shallow of csg talley). - RU power swivel & BJ pump truck and pump lines. Pressure test pump lines to 6000 psi. - RD power swivel. Drop ball for hydraulic by-pass on abrasive perforator. RU Baker Hughes pump line to tbg.

**Daily Cost:** \$0

**Cumulative Cost:** \$130,499

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**7/7/2012 Day: 4****Completion**

Stone #8 on 7/7/2012 - Continue LD tbg. Circulate well clean w/ 20 bbl polymer sweep & 270 bbls wtr in heal of lateral. Establish injection rate w/ 50 BW, 4 BPM @ 3820 psi. Cont. LD tbg & BHA. Attempt pumping down CBL w/o success. RDMOSU. Remove equip not needed for frac - NU 10K 7 1/16" Weatherford frac stack as follows: 10K manual frac valve (existing), 10K HCR frac valve, 10K flowcross w/ double 2 1/16" gate valves on each end & 10K manual frac valve. RU flowback equipment to frac tree. Pressure test each component of frac equipment & J&A flowback equipment w/ low of 250-300 psi for 5 min & high test of 10,000 psi for 10 min. - Load tbg on trailers and return to Runners yard. Move power swivel, pipe racks & hydraulic catwalk off location. Clean location. RDMOSU. - RD WLT & Baker Hughes pressure pumping equipment. ND 5K flowcross & double pipe rams. - RIH w/ CBL tools. Weight check @ 6000', 625 SO & 775 PU. Continue RIH to 6405'. Baker started pumping @ 1 BPM. 7 BW fill csg. Pressure was climbing fast. Reduce rate to 1/2 BPM, pressure @ 4870 psi. Pump CBL to 6468' & over pressure @ 5000 psi. Made several attempts to pump into well w/o success. Discuss options w/ engineering and decision was made to NU 10K frac stack and attempt again following day. POH w/ WL & LD CBL. - MIRU WLT. Held safety & operations meeting w/ Stone rig crew, The Perforators WL crew & Baker Hughes pump crew. Discussing operations of pumping down CBL tools, smoking policies, PPE, Working around pressure & over head loads. PU CBL tools. Pressure test lubricator to 5000 psi for 5 min. - Continue LD 2 3/8" PH-6 5.95# tbg. 120- jts out w/ EOT @ 6715'. - MIRU WLT. Wireline Engineer noticed issues w/ computer system. - ND washington head. Rack out power swivel. - Continue LD 2 3/8" 5.95# PH-6 tbg & BHA. Bear claw bit still looked new. LD TTS abrasive perforator. - Change tower crew on rig. RU Baker Hughes pump line to csg. Pressure test lines to 6000 psi. Close both sets of pipe rams. Establish injection rate w/ 50 BW maintaining injection rate of 3.9 BPM @ 3820 psi w/ last 10 bbls. Did not see a break down, started injecting from beginning. Open well to pit and bleed down. Monitor well for flow (no flow). - RU Baker Hughes pump line to tbg. Pressure test line to 10,000 psi. Pump 20 bbl polymer sweep & circulate well clean w/ 270 bbls water w/ 1 gpt clay treat & 1 gpt Alpha 452. Ave rate of 5.7 BPM & aver pressure of 5400 psi. - Wait for different WLT to arrive.

**Daily Cost:** \$0

**Cumulative Cost:** \$158,507

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**7/8/2012 Day: 5****Completion**

Rigless on 7/8/2012 - RU Baker Hughes pump trucks & Perforators WLT. Establish injection rate of 11.3 BPM @ 6630 psi w/ 72 BW. PU & RIH w/ CBL tools. Pump logging tools down w/ Baker Hughes from 6400' to 10,450'. Record CBL from 10,450 to 6000'. - Held safety & operations tailgate meeting. Discuss the objectives and procedure of tasks. Pressure test WL lubricator to 9500 psi. RIH w/ CCL & CBL tools to 6400'. Started pumping down w/ 7.1 BPM @ 6100 psi-150 FPM & ended w/ 10.1 BPM @ 6500 psi-60 FPM. WL stopped @ 10,450'. Kick out Baker Hughes pumps. 600 BW used for pump down. RD Baker Hughes pumping equipment. - PU WL lubricator & BOPs. PU CCL & CBL tool string. Function test WL BOPs. - 3425 psi on well. Begin POOH from 10,450' while recording CBL through lateral. Stop recording @ 6000'. Log

correlated to Weatherford Compensted Photo Density Dual Neutron log ran on 6/6/12. 5 1/2" X 4 1/2" X-over sub @ 6164'-6178.5' WL depth. POOH w/ WL & LD tools. RD WLT & crane. SWIFN. - MIRU Baker Hughes cement pump truck & frac pump truck. MIRU Perforators WLT. - Held safety meeting w/ Baker Hughes pumping service crew & Perforators WL crew. Discuss PPE, smoking policies, Evacuation plan & Working around pressure. 8:15 AM- pressure test lines to 9500 psi. 8:30 AM- Open well, 230 psi. Establish injection rate w/ 72.3 total bbls ending w/ 6630 psi @ 11.3 BPM.

**Daily Cost:** \$0

**Cumulative Cost:** \$205,281

## 7/10/2012 Day: 6

## Completion

Rigless on 7/10/2012 - Aaron Manning day time supervisor, Don Hernandez night time Supervisor. RU frac equipment and frac stg one - Wait for Pinnacle to get tools in the hole on the 6-36-8-15. - Pressure test pump lines to 9939 psi. Set pop off on Baker Hughes line. Set @ 9637 psi. N2 bottle has 2600 psi. - Held safety meeting w/ all parties. Discussion on overhead loads, working around pressure, no cell phone/radio use while perforating guns are capped and above 300' from surface, PPE, smoking policies and communication. - Stage #1, Perfs @ 10,465' / 10,460' / 10,455' w/ 3 SPF 120° phase abrasive perfs. Test N2 kick out @ 9630 psi. 2600 psi on bottle. Open well, 1503 psi. Broke @ 6279 psi, 4.2 BPM w/ 7.1 bbls. Shut down ISIP: 4750 psi. FG: 1.2 1 min SIP 4570 psi, 4 min SIP 3375 psi. Stage 20.6 bbls 15% HCL @ 1403 psi, 8.8 BPM. Stage 100 mesh .75# @ 8640 psi, 35.8 BPM. Stage sweep @ 8750 psi, 35.4 BPM. Stage .75# 30/50 sand @ 8680 psi, 35.7 BPM. Stage 15% HCL sweep @ 8710 psi, 35.5 BPM. Shut down to fix leak. Stage 1# 100 mesh @ 8670 psi, 37.7 BPM. Stage sweep @ 8830 psi, 37.5 BPM. Stage 1.25# 30/50 sand @ 8830 psi, 37.3 BPM. Stage sweep @ 8560 psi, 37.3 BPM. Stage 1# 100 mesh @ 8650 psi, 44.8 BPM. Stage sweep @ 8710 psi, 44.5 BPM. Stage 1# 30/50 @ 8670 psi, 44.5 BPM. Stage sweep @ 8950 psi, 47.7 BPM. Extend pad w/ csg volume to see if pressure would line out. Pressured out w/ 230.1 bbls into flush (30 bbls over flush). 20,475#s 30/50 white sand. 4,800#s 100 mesh white sand. Treated w/ ave rate of 41.4 BPM w/ max rate of 48.8 BPM. Ave pressure of 8741 psi & Max pressure of 9724 psi. 1502 BWTR. Open well up for flowback. - Held Safety meeting w/ all parties due to Baker Hughes shift change. Attempt pumping into perfs w/o success. Pressured out 17 bbls into pumping @ 4 BPM. Attempted to surge the well by pumping into it and surging it off. Did this 9 times pressured up to 9600psi everytime. Tried pumping 2.3bbls per min. pressured right up to 9600psi. RD Pure energy wireline and half the frac equipment and waiting on coil unit. - Flowed 89 bbls in 37 minutes. Rate had slowed to .9 BPM w/ <100 psi flowing pressure. Shut well in for 15 min to attempt pressure build. Pressure built to 2275 psi. Open for flowback. Flowback total of 119 bbls w/ trace of sand. Shut in well. - MIRU Baker Hughes frac equipment, Pure energy WLT, 4-G torque and test, J&A flowback, Go & Flow water transfer system & Pinnacle Seismic monitoring equipment.

**Daily Cost:** \$0

**Cumulative Cost:** \$207,081

## 7/11/2012 Day: 7

## Completion

Rigless on 7/11/2012 - Aaron Manning daytime supervisor, Don Hernandez night supervisor. RU Coil to cleanout the wellbore RD Coil and then RU frac equipment - Started bring coil into the vertical to drop another ball to open up the wash nozzle again to cleanout to 10400'. - Coil tbg was on depth (10365') to start perfing the first set of perfs on stg two at 2112. At 2115 started pumping sand at 2bpm @5592psi. Sand was at the jets @ 2140 to start cutting the perfs at 4700psi. Finished first set of perfs at (10365') 2202. Moved up to the second set of perfs (10315') at 2005. Finished second set at 2219. moved in to place for the third set of perfs (10265') at 2225. Finished third set at 2255. pumped a sweep at 2310. tried to cleanout to 10400' again couldn't get there sand was in the way. - put the ball in place to open the jets

@ 2045 pumping at 2.5bpm. Dropped pump rate to 1bpm ball was on at 2100 - Held safety meeting w/personnel on location to RU Coil unit - Disconnect lubricator from well control stack. MU BHA as follows: TTS 2" coil connector/back pressure valve 1.68' (OD 2.88" ID 1"), Hydraulic disconnect 2.24' (OD 2.88") W/ 3/4" ball seat, Double piston bypassing spiral abrasive perforator (set for 3 SPF 120° phasing) 3.55' (OD 3.5" ID .53") & High velocity wash nozzle .50' (OD 2.88"). Over all tool length 8.00'. Pressure test lubricator to 8000 psi. - MU CT connector/back pressure valve & pull test to 25K#s. MU injector & lubricator on well control stack and continue pressure tests. Pressure test pump & kill lines w/ low test of 250-300 psi for 5 min & high test of 8000 psi for 10 min. - RU Coil unit, RU Coil stack. Complete Newfield on site pre-job packet for PC3 operations (with variance on hydraulic choke manifold). Function test all rams w/ open, close, open and record times for each. Pressure test each component of well control stack w/ 250-300 psi low test for 5 min & high test of 8000 psi. Ground all equipment used for coil operations. Stab coil through injector head. - Open well. 1900 psi. RIH w/ CT @ 80' FPM in 5 1/5" csg. Pumping 3/4 BPM & returning 3/4 BPM. 2500' WHP 1875 psi & circulating pressure @ 2050 psi. 4500' WHP 1370 psi & CP 1600 psi w/ light sand in returns. On depth at 10400' @ 21:10

**Daily Cost:** \$0

**Cumulative Cost:** \$277,800

## 7/12/2012 Day: 8

## Completion

Rigless on 7/12/2012 - Aaron Manning daytime supervisor & Don Hernandez night time supervisor. Used coil to cleanout and perf stg two. MIRU frac equipment - Started pumping on the well at 2.5 bpm working our way up to 10bpm. We played with the rate up and down according to the psi on the well. Shut down after pumping 249.1 bbls. Opened the well back on a 20 choke flowing back at 350psi 45 minutes later the well was flowing back at 500psi. We flowed the well for an hour then pumped on it at 5-6bpm at 8200psi. We surged the well and tried to run into it 5 times then pumped back into it at 5-6bpm. Decided to call in the coil unit again. - Stage #2, Perfs @ 10,365' / 10,315' & 10,265' w/ 3 SPF 120° phase abrasive perfs. Test N2 kick out @ 9900 psi. 2313 psi on bottle. Open well, 1301 psi. Broke @ 7374 psi, 4.3 BPM w/ 9.2 bbls. Stage 19.7 bbls 15% HCL @ 7400 psi, 9.1 BPM. Stage 100 mesh .75# @ 6890 psi, 33 BPM. Stage sweep @ 7250 psi, 34.7 BPM. Stage .75# 30/50 sand @ 7330 psi, 36 BPM. Stage 15% HCL sweep @ 7550 psi, 37.5 BPM. Stage 1# 100 mesh @ 8100 psi, 39 BPM. Stage sweep @ 8450 psi, 39 BPM. Stage 1.25# 30/50 sand @ 8700 psi, 40.5 BPM. Stage flush @ 9600 psi, 8.2 BPM. Screen out w/ 27 bbls into flush. 13,306#s 30/50 white sand. 3,240#s 100 mesh white sand. Treated w/ ave rate of 32.9 BPM w/ max rate of 41.1 BPM. Ave pressure of 8344 psi & Max pressure of 9931 psi. 832 BWTR. Open for immediate flowback @ 2 BPM w/ heavy sand in returns. Flowed the well back for an hour and twenty minutes. - Held safety meeting w/ Baker Hughes, Protechnics, Pinnacle, J&A, Go & flow, 4G, Halliburton & Pure WL. Topics: Overhead loads, pressurized iron, Radio silence & PPE. - Bringing coil tbg to 6100' which is back in to the vertical to drop a ball to open back up the wash nozzle to cleanout to 10400' - RD CUDD pump truck. MIRU N2 pump truck. Blow coil dry w/ N2. RD CUDD CT unit and well control stack. - Establish injection rate w/ CUDD pump truck. Ending w/ 6 BPM @ 7450 psi. Used total of 25 BW for injection test. - Pumped a sweep and at 0420 Coil started out of the hole to get back to surface. Bump up coil & shut in. - MIRU Baker Hughes frac equipment, Pure WL, Protechnics & Pinnacle.

**Daily Cost:** \$0

**Cumulative Cost:** \$375,687

## 7/13/2012 Day: 9

## Completion

Rigless on 7/13/2012 - Aaron Manning daytime supervisor & Don Hernandez night time supervisor. RU Cudd CT unit. cleanout the well and abrasive perforate stage 3. - Coil Started in the well got in to the horizontal at 2115 slow speed down to 40fpm. Coil got to 6789' at

2200 and had a hydraulic pump go down so we had to pull out of the hole. On surface at 2330. Waiting on Cudd to figure out their hydraulic problem - Cudd encountered computer issues. - Check pressure on well, 1850 psi. Equalize well/lubricator pressure. Open well. - Held safety meeting with personnel on location and RU CUDD Coil unit. Complete Newfield on site pre-job packet for PC3 operations (with variance on hydraulic choke manifold). Function test all rams w/ open, close, open and record times for each. Pressure test each component of well control stack w/ 250-300 psi low test for 5 min & high test of 8000 psi. Ground all equipment used for coil operations. Stab coil through injector head. MU CT connector/back pressure valve & pull test to 25K#s. - Pressure test coil connector to 2500 psi. MU injector & lubricator on well control stack and continue pressure tests. Pressure test pump lines & kill lines to 8000 psi for 10 min. - Cudd pump truck had pump seats that had been washed out due to pumping sand for abrasive perforating. Replacement parts were not correct. Wait for replacement pump to arrive on location & RU pump to pump lines. - Disconnect lubricator from well control stack. MU BHA as follows: TTS 2" coil connector/back pressure valve 1.68' (OD 2.88" ID 1"), Hydraulic disconnect 2.24' (OD 2.88") W/ 3/4" ball seat, Double piston bypassing spiral abrasive perforator (set for 3 SPF 120° phasing) 3.55' (OD 3.5" ID .53") & wash nozzle .50' (OD 2.88"). Over all tool length 8.00'. Pressure test lubricator to 8000 psi.

**Daily Cost:** \$0

**Cumulative Cost:** \$410,695

## 7/14/2012 Day: 10

## Completion

Rigless on 7/14/2012 - Aaron Manning daytime supervisor & Don Hernandez night time supervisor. Cleanout the well and abrasive perforate stage 3. RD Cudd CT unit. - RD Cudd pump truck. Spot Cudd N2 truck. Blow coil dry w/ N2. RD Cudd CT unit. - Establish injection rate of 7.4 bpm @ 5400 psi w/ total of 20 bbls. - Cudd is working on their hydraulic issues. - Started to pull up to start jetting. Circulate bottoms up. Dropped the ball to open the jetting tool. Pulled up to 10176' to start jetting the perfs in stage #3 @ 10174'-10176', abrasive perfs 3 SPF 120 degree phasing 3, 10124'-10126' abrasive perfs 3 SPF 120 degree phasing, 10074'-10076' abrasive perfs 3 SPF 120 degree phasing. Each cluster of abrasive perfs were done in 1' intervals @ 3 SPF, 120° phasing w/ 800#s of 100 mesh white sand pumped in 36 bbls of fluid @ 1/2 ppg w/ rate of 1.5 BPM. Pumped 10 bbl pad & 20 bbl polymer sweep following last sand stage. - Coil Started back in the hole. Tagged sand at 0449 @ 8949' Washed down to 10265' @ 0610. - Attempt to clean out below perfs after polymer sweep had been pumped out EOT w/o success. Short trip CT to 5800' to clean out lateral @ 40 fpm, pumping 1 1/2 BPM.. Drop ball to open bypass on TTS perforator and return flow to wash nozzle. Increase pump rate to 3 BPM. RIH w/ CT & clean out to 10,200'. Pump 20 bbl polymer sweep. After sweep had exited EOT, POOH w/ CT @ 40 fpm through lateral. Pump additional 20 bbl polymer sweep to be exiting EOT through heel of lateral. Continue POOH w/ CT @ 80 fpm @ 6100' (5 1/2" csg). Bump up @ 6:30 PM.

**Daily Cost:** \$0

**Cumulative Cost:** \$433,225

## 7/15/2012 Day: 11

## Completion

Rigless on 7/15/2012 - Aaron Manning daytime supervisor & Don Hernandez night time supervisor. RU Frac Equipment and frac stage #3. Continue to Perf and frac - PU CCL, 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing (18" total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. Open well @ 19:30. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 2 BPM and increase rate slowly until WL was able to maintain 200 fpm, 11 BPM @ 3430 psi. Pump WL down to 9695' & stop pumping. PUH & set Halliburton 10K CFP @ 9,662'. PUH & perforate stage #6 @ 9608-9.5', 9565-66.5' & 9505-06.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - PU CCL, 2 3/4"

slick perf guns loaded w/ 6 SPF @ 60° phasing(18" total of 27 shots) & Halliburton CFP. Pressure test lubricator to 9987 psi for 5 min. Open well @ 23:20. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 3.5 BPM and increase rate slowly until WL was able to maintain 200 fpm, 8.5 BPM @ 3600 psi. Pump WL down to 9433' & stop pumping. PUH & set Halliburton 10K CFP @ 9457'. PUH & perforate stage #7 @ 9315-16.5', 9365-66.5' & 9415-16.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL - Stage #6, Perfs @ 9608-9.5', 9565-66.5' & 9505-06.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Open well, @ 2470 psi. 10 bbls to land ball. Broke @ 7610 psi, 13.2 BPM. Shutdown ISIP 3400 psi .98 psi/ft FG. 1min 3050 psi, 4min 2870 psi. 24 perfs open. Seat ball 10 bpm 7990psi Stage 40 bbls 15% HCL 9.8bpm 3520psi Stage Slickwater Stage 0.5# 100 mesh 39.3bpm 6700psi Stage Slickwater 43.4bpm 7320psi Stage 0.5# 30/50 52.9bpm 7400psi Stage Slickwater 57.7bpm 8000psi Stage HCL 57.7bpm 8000psi Stage Slickwater 57.7bpm 8000psi Stage 0.5# 100 mesh 60.5bpm 8090psi Stage Slickwater 60.3bpm 8000psi Stage 0.5# 30/50 60.4bpm 7870psi Stage Slickwater 60.2bpm 7600psi Stage 0.5# 30/50 60.3bpm 7440psi Stage Slickwater 60.3bpm 7570psi Stage 0.5# 100 mesh 60.3bpm 7570psi Stage Slickwater 60.3bpm 7590psi Stage 0.75# 30/50 60.3bpm 7590psi Stage Slickwater 60.3bpm 7760psi Stage 0.75# 30/50 60.3bpm 7710psi Stage Slickwater 60.3bpm 7730psi Stage HCL 60.3bpm 7730psi Stage Slickwater 60.3bpm 7730psi Stage 0.75# 100 mesh 60.3bpm 7970psi Stage Slickwater 60.3bpm 7980psi Stage 0.75# 30/50 60.5bpm 7760psi Stage Slickwater 57.5bpm 7450psi Stage 0.75# 30/50 60.5bpm 7670psi Stage Slickwater 58.1bpm 7560psi Stage 0.75# 100 mesh 59.2bpm 7910psi Stage Slickwater 59.3bpm 7620psi Stage 0.75# 30/50 59.3bpm 7650psi Stage Slickwater 59.3bpm 7650psi Stage 0.75# 30/50 59.3bpm 7650psi Stage Slickwater 59.3bpm 7650psi Stage 0.75# 100 mesh 59.3bpm Blew a hydraulic hose on the blender. Shut down for 5 minutes w/ 1200# of 0.75# 100 mesh in the pipe. Manually opened tub bypass on blender and flushed with CMG unit. Hydraulic hose was for a sand screw. Will cap and switch to the 3rd sand screw. Stage Flush 60.3bpm 29996#s 30/50 white sand. 4136#s 100 mesh white sand. Treated w/ ave rate of 58 BPM w/ max rate of 62 BPM. Ave pressure of 7680 psi & Max pressure of 8115 psi. 3250BWTR. SDISIP 3140 psi .94 psi/ft FFG. - Stage #5, Perfs @ 9835-36.5' / 9795-96.5' / 9695-96.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Open well, @ 2476 psi. Broke @ 6242 psi, 4.5 BPM w/ 12.7 bbls. Stage 40 bbls 15% HCL @ 6650 psi, 8.2 BPM. Shutdown ISIP 3098 psi 0.93 psi/ft IFG. 1min 2915 psi, 4min 2749 psi. Stage 100 mesh 0.5# @ 7080 psi, 37.6 BPM. Stage sweep @ 7590 psi, 43.5 BPM. Stage 0.5# 30/50 sand @ 7580 psi, 50.8 BPM. Stage 15% HCL sweep @ 8037 psi, 51.6 BPM. Stage 0.5# 100 mesh @ 7080 psi, 37.6 BPM. Stage sweep @ 7590 psi, 43.5 BPM. Stage 0.5# 30/50 sand @ 7580 psi, 50.8 BPM. Stage sweep @ 7980 psi, 50.8 BPM. Stage 0.5# 30/50 mesh @ 8000 psi, 51 BPM. Stage sweep @ 8120 psi, 50 BPM. Stage 0.5# 100 mesh @ 8010 psi, 50.7 BPM. Stage sweep @ 8040 psi, 51.9 BPM. Stage 0.5# 30/50 mesh @ 7840 psi, 56.2 BPM. Stage sweep @ 7820 psi, 58.3 BPM. Stage 0.5# 30/50 mesh @ 7860 psi, 58.3 BPM. Stage sweep @ 7870 psi, 59.5 BPM. Stage 15% HCL sweep @ 7650 psi, 61.8 BPM. Stage sweep @ 7610 psi, 61.6 BPM. Stage 0.75# 100 mesh @ 7780 psi, 61.6 BPM. Stage sweep @ 7820 psi, 61.2 BPM. Stage 0.75# 30/50 mesh @ 7640 psi, 61.7 BPM. Stage sweep @ 7650 psi, 61.7 BPM. Stage 0.75# 30/50 mesh @ 7710 psi, 61.7 BPM. Stage sweep @ 7340 psi, 61.7 BPM. Stage 0.75# 100 mesh @ 7650 psi, 61.7 BPM. Stage sweep @ 7510 psi, 61.5 BPM. Stage 0.75# 30/50 mesh @ 7250 psi, 61.5 BPM. Stage sweep @ 7300 psi, 61.9 BPM. Stage 0.75# 30/50 mesh @ 7260 psi, 61.9 BPM. Stage sweep @ 7060 psi, 62.2 BPM. Stage 0.75# 100 mesh @ 7120 psi, 62.3 BPM. Stage sweep @ 7810 psi, 61.6 BPM. Stage 0.75# 30/50 mesh @ 6890 psi, 61.9 BPM. Stage sweep @ 6890 psi, 62.1 BPM. Stage 1.0# 30/50 mesh @ 6870 psi, 62 BPM. Stage Flush @ 6480 psi, 60.4 BPM. 38,195#s 30/50 white sand. 3804#s 100 mesh white sand. Treated w/ ave rate of 59 BPM w/ max rate of 63 BPM. Ave pressure of 7140 psi & Max pressure of 8150 psi. 4802 BWTR. SDISIP 3073 psi 0.94 psi/ft FFG. - PU CCL, 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(18" total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. Open well @ 2:45 PM. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 2 BPM and increase rate slowly until WL was able to maintain 150-170 fpm, 11 BPM @ 7730 psi. Pump WL down to 9,850' & stop

pumping. PUH & set Halliburton 10K CFP @ 9,835'. PUH & perforate stage #5 @ 9835-36.5', 9795-96.5' & 9695-96.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Held safety meeting with all the personnel on location. RU Frac Equipment and Frac Stage #3. Pressure test pump lines to 9923 psi. Set pop off on Baker Hughes line. Set @ psi. N2 bottle has 2499 psi. - Wait for replacement pump from Baker Hughes. Fluid end was found to be cracked. - Baker Hughes crew change. Held safety meeting w/ Baker Hughes, Protechnics, Pinnacle, J&A, Go & flow, 4G, Halliburton & Pure WL. Topics: Overhead loads, pressurized iron, Radio silence, Communication during pump downs, lightning w/ perf guns & PPE. - RU Pure energy WLT & crane. PU CCL, 3-3' X 2 3/4" slick perf guns & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. Open well @ 8:20 AM w/ 2400 psi. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 2 BPM and increase rate slowly until WL was able to maintain 150-170 fpm, 11 BPM @ 6800 psi. Pump WL down to 10,020' & stop pumping. PUH & set Halliburton 10K obsidian CFP @ 10,015'. PUH & perforate stage #4 @ 9985-88', 9935-38' & 9885-88' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 3 SPF @ 120° phasing. Total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Stage #3, Perfs @ 10174-10176' / 10124-10126' / 10074-10076' w/ 3 SPF 120° phase abrasive perfs. Open well, @ 0510 @ 1450 psi. Broke @ 5931 psi, 4.2 BPM w/ 7.1 bbls. Stage 40 bbls 15% HCL @ 5853 psi, 10.8 BPM. Stage 100 mesh .75# @ 7588 psi, 39.7 BPM. Stage sweep @ 7291 psi, 43.8 BPM. Stage .75# 30/50 sand @ 7247 psi, 50.4 BPM. Stage 15% HCL sweep @ 7212 psi, 51.8 BPM. Stage .75# 100 mesh @ 7721 psi, 56.2 BPM. Stage sweep @ 7686 psi, 58.7 BPM. Stage 1# 30/50 sand @ 7728 psi, 60.4 BPM. Stage sweep @ 7857 psi, 61.3 BPM. Stage .75# 100 mesh @ 7529 psi, 61.5 BPM. Stage sweep @ 7563 psi, 61.5 BPM. Stage .75# 30/50 @ 7605 psi, 61.5 BPM. Stage sweep @ 7900 psi, 61.5 BPM. Stage 1# 30/50 sand @ 7594 psi, 58.6 BPM. Stage 15% HCL sweep @ 7687 psi, 57.5 BPM. Stage .75# 100 mesh @ 8378 psi, 62 BPM. Stage sweep @ 8289 psi, 61.6 BPM. Stage .75# 30/50 @ 7915 psi, 62.2 BPM. Stage sweep @ 7851 psi, 57.7 BPM. Stage 1# 30/50 sand @ 8375 psi, 57.5 BPM. Stage sweep @ 7844 psi, 57.8 BPM. Pressure was rising, stay on sweep & pressured out 223 bbls into sweep. Attempt to pump into w/o success. Surge well. Able to pump into formation. Pump 722 bbls into formation to establish injection rate of 20 BPM @ 8000 psi. 30,454#s 30/50 white sand. 5,000#s 100 mesh white sand. Treated w/ ave rate of 58.3 BPM w/ max rate of 61.6 BPM. Ave pressure of 7724 psi & Max pressure of 9696 psi. 3077 BWTR. - Stage #4, Perfs @ 9,985-88', 9,935-38' & 9,885-88' w/ 3 SPF @ 120° phasing. 12:00 Noon. Pressure test lines to 9900 psi. Open well, 2383 psi. Halliburton toolhand had not placed ball in wellhead. Shut in well & bleed off pressure. Place ball in top frac valve. Pressure test lines. 12:26 PM. Open well, @ 2356 psi. Broke @ 5117 psi, 4.0 BPM w/ 17 bbls. Stage 18.7 bbls 15% HCL @ 5460 psi, 18.7 BPM. Shut down, ISIP 3596 psi, 1 min SIP 3140 psi, 4 min SIP 2962 psi. Stage 100 mesh .75# @ 7670 psi, 39.6 BPM. Stage sweep @ 8030 psi, 43.4 BPM. Stage .75# 30/50 sand @ 8180 psi, 48.3 BPM. Stage 15% HCL sweep @ 8500 psi, 51.0 BPM. Stage .75# 100 mesh @ 8500 psi, 51.0 BPM. Stage sweep @ 8720 psi, 51.0 BPM. Stage .75# 30/50 sand @ 8970 psi, 51.6 BPM. Stage sweep @ 9250 psi, 50.6 BPM. Stage .75# 100 mesh @ 8870 psi, 51.3 BPM. Stage sweep @ 9140 psi, 53.7 BPM. Stage .75# 30/50 @ 9110 psi, 49.7 BPM. Stage sweep @ 9260 psi, 50.9 BPM. Stage .75# 30/50 sand @ 9180 psi, 51.6 BPM. Pressure was rising, stay on sweep & flush w/ 278 bbls (85.6 bbls overflush). 10,000#s 30/50 white sand. 2,900#s 100 mesh white sand. Treated w/ ave rate of 48.1 BPM w/ max rate of 53.7 BPM. Ave pressure of 8876 psi & Max pressure of 9658 psi. ISDP 4408 psi, 5 min SIP 3116 psi, 10 min SIP 2861 psi. FG=1.15. 1799 BWTR.

**Daily Cost:** \$0

**Cumulative Cost:** \$480,656

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**7/16/2012 Day: 12**

**Completion**

Rigless on 7/16/2012 - Aaron Manning daytime supervisor & Don Hernandez night time supervisor. Continue to perf and frac Starting on stg #7 - Stage #7 @ 9315-16.5', 9365-66.5' & 9415-16.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total

of 27 shots. Open well, @ 2424 psi. 168 bbls to land ball. Broke @ 6465 psi, 16 BPM. Shutdown ISIP 3320 psi .98 psi/ft FG. 1min 2880 psi, 4min 2780 psi. 21 perfs open. Seat ball 10 bpm 6215 psi Stage 12 bbls 15% HCL 20 bpm 5800 psi, Stage Slickwater 40 bpm 6366 psi, Stage 0.5# 100 mesh 53.2 bpm 7802 psi, Stage Slickwater 59.3 bpm 7798 psi, Stage 0.5# 30/50 59.6 bpm 7700 psi, Stage Slickwater 59 bpm 7910 psi, Stage HCL 59 bpm 7900 psi, Stage Slickwater 59 bpm 7920 psi, Stage 0.75# 100 mesh 59 bpm 7907 psi, Stage Slickwater 59 bpm 7910 psi, Stage 0.75# 30/50 60 bpm 7764 psi, Stage Slickwater 59 bpm 7817 psi, Stage 0.75# 30/50 59 bpm 7693 psi, Stage Slickwater 59 bpm 8059 psi, Stage 0.75# 100 mesh 59 bpm 8210 psi, Stage Slickwater 59 bpm 8226 psi, Stage 0.75# 30/50 60 bpm 8304 psi, Stage Slickwater 59 bpm 8150 psi, Stage 0.75# 30/50 59 bpm 8473 psi, Stage Slickwater 59 bpm 8347 psi, Stage HCL 59 bpm 8347 psi, Stage Slickwater 59 bpm 8347 psi, Stage 0.75# 100 mesh 59 bpm 8470 psi, Stage Slickwater 59 bpm 8327 psi, Stage 0.75# 30/50 60 bpm 7850 psi, Stage Slickwater 60 bpm 8024 psi, Stage 0.75# 30/50 59 bpm 8377 psi, Stage Slickwater 60 bpm 8034 psi, Stage 0.75# 100 mesh 59 bpm 8609 psi, Stage Slickwater 59 bpm 8581 psi. Had to come offline briefly due to leaking hammer union on bleed off line. Stage 0.75# 30/50 59 bpm 8232 psi, Stage Slickwater 59 bpm 8450 psi, Stage 1.0# 30/50 59 bpm 8633 psi, Stage Slickwater 59 bpm 8619 psi, Stage 0.75# 100 mesh 59 bpm 8856 psi. Stage Flush 59 bpm 8844 psi. 37214#s 30/50 white sand. 7836#s 100 mesh white sand. Treated w/ ave rate of 59 BPM w/ max rate of 62 BPM. Ave pressure of 8375 psi & Max pressure of 8115 psi. 4587 BWTR. SDISIP 4520 psi 1.17 psi/ft FFG. - Stage #10 @ 8845-46.5', 8800-01.5' & 8757-58.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Open well, @ 2415 psi. Land ball. Broke @ x psi, x BPM. Shutdown ISIP 3420 psi .91 psi/ft FG. 1min 3109 psi, 4min 2810 psi. Stage 10 bbls 15% HCL. Stage Slickwater to establish rate @ 51 BPM 6727 psi. Stage 0.5# 100 mesh 51.1 BPM @ 6710 psi. Stage Slickwater 53.4 BPM @ 6840 psi. Stage 0.5# 30/50 53.4 BPM @ 6840 psi. Stage Acid/Sweep 53.9 bpm @ 6910 psi. Stage 0.75# 100 mesh 51.8 bpm @ 8130 psi. Stage sweep 52.1 bpm @ 7730 psi. Stage 0.75# 30/50 50.6 bpm @ 8730 psi. Stage slickwater 50.5 bpm @ 8770 psi. Pressured out w/sand clearing the wellbore. Surged well 3X. Brought one pump on @ 4.5 bpm. Pumped 6 bbls acid. Pressure dropped w/acid on formation. Worked rate up to 20 bpm @ 6900 psi. Turn over to WL. 2,450#s 30/50 white sand. 3,964#s 100 mesh sand. Treated w/ ave rate of 50.3 BPM w/ max rate of 54 BPM. Ave pressure of 7906 psi & Max pressure of 9600 psi. 1992 BWTR. - PU CCL, 3- 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing (3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10,000 psi for 5 min. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 4.2 BPM and increase rate slowly until WL was able to maintain 200 fpm, 9.5 BPM @ 4700 psi. Pump WL down to 8905' & stop pumping. PUH & set Halliburton 10K CFP @ 8901'. PUH & perforate stage #10 @ 8845-46.5', 8800-01.5' & 8757-58.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Stage #9 @ '9035-36.5', 8985-86.5' & 8935-36.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Open well, @ 2230 psi. Land ball. Broke @ 4780 psi, 4.5 BPM. Shutdown ISIP 3055 psi .93 psi/ft FG. 1min 2855 psi, 4min 2662 psi. Stage 12 bbls 15% HCL. Stage Slickwater to establish rate @ 45 BPM 6226 psi. Stage 0.5# 100 mesh 45.4 BPM @ 6480 psi. Stage Slickwater 48.4 BPM @ 6690 psi. Stage 0.5# 30/50 55.5 BPM @ 7270 psi. Stage Acid/sweep 56.8 BPM @ 7820 psi. Stage 0.5# 100 mesh 56.7 BPM @ 8030 psi. Stage Slickwater 56.6 BPM @ 7800 psi. Stage 0.5# 30/50 56.8 BPM @ 7600 psi. Stage Slickwater 56.8 BPM @ 7710 psi. Stage 0.5# 30/50 56.5 BPM @ 7730 psi. Stage Slickwater 59.8 BPM @ 7530 psi. Stage 0.75# 100 mesh 59.9 BPM @ 7440 psi. Stage Slickwater 59.9 BPM @ 7090 psi. Stage 0.75# 30/50 61.4 BPM @ 7270 psi. Stage Slickwater 61.7 BPM @ 7080 psi. Stage 0.75# 30/50 61.4 BPM @ 7190 psi. Stage Acid/sweep 61.7 BPM @ 7070 psi. Stage 0.75# 100 mesh 61.6 BPM 7160 psi. Stage Slickwater 61.5 BPM 7050 psi. Stage 0.75# 30/50 61.6 BPM 7190 psi. Stage Slickwater 61.3 BPM 7380 psi. Stage 0.75# 30/50 61.4 BPM @ 7590 psi. Stage Slickwater 59.9 BPM @ 7400 psi. Stage 0.5# 100 mesh 61.3 BPM @ 7850 psi. Stage Flush 60.9 BPM @ 8020 psi. 23,433#s 30/50 white sand. 6500#s 100 mesh white sand. Treated w/ ave rate of 59 BPM w/ max rate of 62.2 BPM. Ave pressure of 7464 psi & Max pressure of 8414 psi. 3697 BWTR. SDISIP 3087 psi 0.93 psi/ft FFG. 5min 2710 psi, 10min 2616 psi, 15min 2570 psi. - PU CCL, 3- 2 3/4" slick

perf guns loaded w/ 6 SPF @ 60° phasing(3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10170 psi for 5 min. Open well @ 05:15. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 4.2 BPM and increase rate slowly until WL was able to maintain 200 fpm, 10.5 BPM @ 5912 psi. Pump WL down to 9250' & stop pumping. PUH & set Halliburton 10K CFP @ 9246'. PUH & perforate stage #8 @ 9212-13.5', 9165-66.5' & 9125-26.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Seat ball .Stage 12 bbls 15% HCL .Stage Slickwater to establish rate @ 53.3 BPM 8569 psi. Stage 0.5# 100 mesh 53.3 BPM @ 8569 psi. Stage Slickwater 57.8 BPM @8368 psi. Stage 0.5# 30/50 61.0 BPM @ 8868 psi. Stage Slickwater 60.5 BPM @ 8930 psi.Stage 20 bbls 15% HCL 60.5 BPM @ 9101 psi. Stage Slickwater 59.6 BPM @ 8890 psi. Stage 0.5# 100 mesh 57.5 BPM @ 8293 psi. Stage Slickwater 61.0 bpm @ 8890 psi. Stage Slickwater 61.0 BPM @ 9088 psi. Shut down due to line leak on low pressure side of bleed off. Stage slickwater attempting to establish rate. Shut down after 588 bbls of slickwater w/ only pumping 35.0 BPM @ 9027 psi. ISDP 3434 psi, 5 min SIP 2789 psi, 10 min SIP 2659 psi, 15 min SIP 2608 psi. Propant into perfs, 2026#s of 100 mesh white sand, 3265#s of 30/50 white sand. Treated w/ ave rate of 25.9 BPM w/ max rate of 61 BPM. Ave pressure of 6035 psi & Max pressure of 9653 psi. 2276 BWTR - Pump truck had leak on transmission coolant line. RD pump & wait for replacement pump from Vernal. RU replacement pump. - Stage #8 @ 9212-13.5', 9165-66.5' & 9125-26.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Open well, @ 2475 psi. 173 bbls to land ball. Broke @ 3333 psi, 6.5 BPM. Shutdown ISIP 2868 psi .90 psi/ft FG. 1min 2790 psi, 4min 2670 psi. Seat ball 7.3 bpm 3270 psi Stage 12 bbls 15% HCL 6.5 bpm 3220 psi, Stage Slickwater 40.5 bpm 6660 psi. Pumped total of 350 bbls of fluid, shut down for step down test. - PU CCL,3- 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10,000 psi for 5 min. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 2.0 BPM and increase rate slowly until WL was able to maintain 200 fpm, 11 BPM @ 6060 psi. Pump WL down to 9050' & stop pumping. PUH & set Halliburton 10K CFP @ 9048'. PUH & perforate stage #9 @ 9035-36.5', 8985-86.5' & 8935-36.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL.

**Daily Cost:** \$0

**Cumulative Cost:** \$704,176

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## 7/17/2012 Day: 13

## Completion

Rigless on 7/17/2012 - Aaron Manning daytime supervisor & Don Hernandez night time supervisor. Continue to perf and frac Starting on stg #11 - Stage #12. Perfs @ 8465-66.5', 8424-25.5' & 8365-66.6'. Pressure test lines to 9885 psi. Open well w/ 2525 psi. Stage 9 bbls 15% HCL @ 8.9 BPM. Pump ball down & seat w/ 164 bbls slick water @ 9.9 BPM. Pump 279 total bbls & do step down test. ISIP 3590 psi. FG 1.0. 1 min SIP 3222 psi, 4 min SIP 2909 psi. Pump 116 bbls slickwater to establish rate. Stage .5# 100 mesh white sand @ 6980 psi, 47.5 BPM. Stage sweep @ 6940 psi, 51.1 BPM. Stage .50# 30/50 white sand @ 7090 psi, 60.4 BPM. Stage 15% HCL sweep & slickwater @ 7420 psi, 60.1 BPM. Stage .75# 100 mesh white sand @ 7560 psi, 60.1 BPM. Stage sweep @ 7370 psi, 60.3 BPM. Stage .75# 30/50 white sand @ 6960 psi, 60.2 BPM. Stage 15% HCL acid sweep @ 9000 psi, 50.9 BPM. Stage .50# 100 mesh white sand @ 7859 psi, 47.7 BPM. Stage sweep @ 7876 psi, 56.1 BPM. Stage 15% HCL sweep @ 8892 psi, 29.4 BPM. Stage .25# 30/50 white sand @ 8204 psi, 29.5 BPM. Stage sweep @ 7317 psi, 29.5 BPM. Stage .50# 30/50 white sand @ 7708 psi, 29.5 BPM. Stage sweep @ 7967 psi, 29.5 BPM. Stage 15% HCL sweep @ 8655 psi, 29.6 BPM. Stage .50# 30/50 white sand @ 8675 psi, 29.6 BPM. Stage 17 bbls 15% HCL @ 7137 psi, 4.2 BPM. Pump 51 bbls slickwater @ 7089 psi, 4.2 BPM. Surge well. Pump 126 bbls slickwater @ 3.2 BPM w/ pressure increasing to 9278 psi. Pressure dropped to 7200 psi. Increase rate to 11 BPM, pressured out w/ 13 bbls. Pressure dropped to 4817 psi. Resume pumping. Only able to pump into well @ 3.7 BPM. Shut down and turn over to flowback. ISDP 5845 psi, 5 min SIP 2922

psi, 10 min SIP 2803 psi. Treated w/ ave rate of 27 BPM w/ max rate of 60.4 BPM. Average treating pressure 8650 psi w/ max pressure 9465 psi. Prop: 2,176#s 100 mesh white sand & 9,548#s 30/50 white sand. 3015 BWTR. - PU CCL,3- 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 4.2 BPM and increase rate slowly until WL was able to maintain 200 fpm, 10.5 BPM @ 6300 psi. Pump WL down to 8520' & stop pumping. PUH & set Halliburton 10K CFP @ 8520'. PUH & perforate stage #12 @ 8465-66.5', 8424-25.5' & 8365-66.6' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Stage #11 @8655-56.5', 8568-69.5' & 8555-56.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Open well, @ 2415 psi. Land ball. Broke @ x psi, x BPM. Shutdown ISIP 3420 psi .91 psi/ft FG. 1min 3109 psi, 4min 2810 psi. Seat ball 9.9bpm 5540psi. Stage 11 bbls 15% HCL 25.9bpm 7000psi. Stage Slickwater 25.9bpm 7000psi. Stage 0.5# 100 mesh 46.4bpm 7060psi. Stage Slickwater 50.3bpm 7270psi. Stage 0.5# 30/50 60.2bpm 7290psi. Stage Acid/sweep 60.1bpm 7520psi. Stage 0.5# 100 mesh 59.9bpm 7710psi. Stage Slickwater 60bpm 7450psi. Stage 0.5# 30/50 60.1bpm 7130psi. Stage Slickwater 60.2bpm 7340psi. Stage 0.5# 30/50 59.6bpm 7750psi. Stage Slickwater 60.2bpm 7500psi. Stage 0.75# 100 mesh 60.5bpm 8000psi. Stage Slickwater 60.3bpm 8120psi. Stage 0.75# 30/50 61.1bpm 7600psi. Stage Slickwater 59.9bpm 7820psi. Stage 0.75# 30/50 .Stage Acid/sweep 32.9bpm 8210psi. Stage 0.75# 100 mesh 49.7bpm 8610psi. Stage Slickwater .Stage 0.75# 30/50 .Stage Slickwater .Stage 0.75# 30/50 .Stage Slickwater .Stage 0.75# 100 mesh .Stage Slickwater .Stage 0.75# 30/50 .Stage Slickwater .Stage 1.0# 30/50 .Stage Slickwater .Stage 0.75# 100 mesh. Stage Flush 49.7bpm 8720psi. Surged well 3X. Brought one pump on @ 4.5 bpm. Pumped 6 bbls acid. Pressure dropped w/acid on formation. Worked rate up to 20.6 bpm @ 6900 psi. Turn over to WL. Stage #11 @8655-56.5', 8568-69.5' & 8555-56.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Open well, @ 2451 psi. Land ball. Broke @ 5998 psi, 9.9 BPM. Shutdown ISIP 3433 psi .98 psi/ft FG. 1min 2920 psi, 4min 2727 psi. 12705#s 30/50 white sand. 5064#s 100 mesh white sand. Treated w/ ave rate of 50 BPM w/ max rate of 62 BPM. Ave pressure of 7882 psi & Max pressure of 9366 psi. 2881 BWTR. SDISIP 3318 psi 0.96 psi/ft FFG. 5min 2847 psi, 10min 2741 psi, 15min 2686 psi. - Started Stg #13 frac and Screened out after just 1000#s of 30/50 in the first sand stg try to surge and pump into it and could not. Flowed the well for an hour and a half then got back into the well at 31.6bpm at 8100psi. - Baker Hughes had to RD a pump truck and move in another one and RU - PU CCL,3- 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 4.2 BPM and increase rate slowly until WL was able to maintain 200 fpm, 10.5 BPM @ 4700 psi. Pump WL down to 8318' & stop pumping. PUH & set Halliburton 10K CFP @ 8315'. PUH & perforate stage #13 @ 88226-27.5', 8220-21.5' & 8214-15.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - RD ballcatch and RU wireline to perf - Pressure test pump lines. Open well w/ 1564 psi. Walk rate up to 11 BPM & pressured out @ 71 bbls. Pumped total of 97 bbls. Open well for flowback @ 5:15 PM. Recovered 190 bbls. Start pumping @ 6:00 PM. Stage 30 bbls 15% HCL @ 243 psi, 2.5 BPM. - Open well to flowback tank attempting to retrieve ball from wellbore. Recovered 490 bbls. Pressure had dropped to 100 psi flowing pressure. Did not recover ball. Shut well in. - RU ball catcher in flowback line. Pressure test flowback equipment to 10,000 psi. - Wait for ball catcher to be delivered to location. - Open for flowback on 27/64 choke @ 7 BPM w/ 1500 psi. Recovered 440 bbls of water w/ rate flocculating between 7 BPM & 3.5 BPM w/ small show of sand in returns. Pressure had dropped to 1050 psi flowing pressure. Attempt pumping into well again. Only able to pump 33.1 bbls @ 7 BPM before pressuring out. Stim-tech report showed all fluid recovered flowing back came from previous stages. Decided to RU ball catcher on flowback iron & flow well attempting to recover ball pumped for frac plug. - PU CCL,3- 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 4.2 BPM and increase rate slowly

until WL was able to maintain 200 fpm, 9.3 BPM @ 4850 psi. Pump WL down to 8694' & stop pumping. PUH & set Halliburton 10K CFP @ 8689'. PUH & perforate stage #11 @ 8655-56.5', 8568-69.5' & 8555-56.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL.

**Daily Cost:** \$0

**Cumulative Cost:** \$732,459

**7/18/2012 Day: 14**

**Completion**

Rigless on 7/18/2012 - Aaron Manning daytime supervisor & Don Hernandez night time supervisor. Continue to perf and frac Starting on stg #14 - PU CCL,3- 3 1/8th" ERHSC w/ 6 SPF @ 60° phasing(3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 4.2 BPM and increase rate slowly until WL was able to maintain 200 fpm, 8 BPM @ 3240 psi. Pump WL down to 7683' & stop pumping. PUH & set Halliburton 10K CFP @ 7683'. PUH & perforate stage #16 @ 7650-51.5', 7646-47.5' & 7642-43.5' w/ 3 1/8th" ERHSC .45 entry 22.7 grams 2.5' barrels 1.5ft of load 37.5" penetration. 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Frac Stage #15 Total sand: 5500# 100 mesh, 72.940#s 30/50 white sand. Open well @ 1:06 PM w/ 2468 psi. Broke @ 5303 psi @ 6.5 BPM, 151 bbls slickwater to seat ball. ISIP 3284 psi (FG 0.97) 1 min SIP 2974 psi, 4 min SIP 2784 psi. Stage 49 bbl 15% HCL & Slickwater to seat ball @ 13.4 BPM & 5211 psi. Stage Lightning 17 pad @ 39.5 BPM @ 5742 psi. Stage Lightning 17, .5# 30/50 white sand @ 35.3 BPM, 5782 psi. Stage Slickwater spacer @ 34.3 BPM, 5716 psi Stage Lightning 17, .5# 100 mesh @ 35.3 BPM, 5772 psi. Stage Lightning 17, 1#100 mesh @ 35.3 BPM, 5832 psi. Stage Lightning 17, .5# 30/50 white sand @ 35.3 BPM, 5962 psi. Stage Lightning 17, 1# 30/50 white sand @ 35.2BPM, 5883 psi. Stage Lightning 17, 2# 30/50 white sand @ 35.9 BPM, 5159 psi. Stage Lightning 17, 3# 30/50 white sand @ 35.9 BPM, 4839 psi. Stage Lightning 17, 3.5# 30/50 white sand @ 35.7 BPM, 4591 psi. Stage Lightning 17, 4# 30/50 white sand @ 36.7 BPM, 4526 psi. Stage Slickwater flush @ 36.1 BPM, 4523 psi. ISDP 3785 psi ( FG: .96) 5 min SIP 2625 psi, 10 min SIP 2561 psi, 15 min SIP 2551 psi. Treated w/ ave pressure of 4774 psi, max pressure 6500 psi. Ave rate of 35.7 BPM & Max rate of 36.2 BPM. - PU CCL,3- 3 1/8th" ERHSC w/ 6 SPF @ 60° phasing(3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 4.2 BPM and increase rate slowly until WL was able to maintain 200 fpm, 10 BPM @ 6300 psi. Pump WL down to 7900' & stop pumping. PUH & set Halliburton 10K CFP @ 7895'. PUH & perforate Stage #15 @ 7860-61.5', 7856-57.5' & 7852.5-53' w/ 3 1/8th" ERHSC .45 entry 22.7 grams 2.5' barrels 1.5ft of load 37.5" penetration. 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Frac Stage #14 Open well @ 8:20 AM w/ 2343 psi. Broke @ 5317 psi @ 12.1 BPM, 161 bbls slickwater to seat ball. ISIP 3433 psi (FG 0.99) 1 min SIP 3085 psi, 4 min SIP 2917 psi. Stage 32 bbl 15% HCL & Slickwater to seat ball @ 4,210 psi. Stage Lightning 17 pad @ 40.4 BPM @ 6,110 psi. Stage Lightning 17 100 mesh .5# sand @ 40.2 BPM, 5890 psi. Stage Slickwater spacer @ 40.1 BPM, 5770 psi Stage Lightning 17, .5#100 mesh @ 40.1 BPM, 6050 psi. Stage Lightning 17, 1# 100 mesh @ 40.1 BPM, 5940 psi. Stage Lightning 17, .5# 30/50 white sand @ 39.9 BPM, 6400 psi. Stage Slickwater spacer & 10 bbls 15% HCL @ 39.8BPM, 6900 psi. Stage Lightning 17, .5# 30/50 white sand @ 48.7 BPM, 6650 psi. Stage Slickwater spacer/flush @ 48.2 BPM, 7700 psi. Shut down due to rising pressure . ISDP 3575 psi ( FG: 1.0) 5 min SIP 3026 psi, 10 min SIP 2889 psi, 15 min SIP 2800 psi. - PU CCL, 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(18" total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. Open well @ 23:00. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 2 BPM and increase rate slowly until WL was able to maintain 150-170 fpm, 8 BPM @ 2900 psi. Pump WL down to 7309' & stop pumping. PUH & set Halliburton 10K CFP @ 7307'. PUH & perforate stage #18 @ 7273-74.5', 7268-69.5' & 7262-63.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Backer

Hughes RD to get slickwater chemicals to spot in gel and gel chemicals. Plus, Pure Energy is build 3 1/8th ERHSC .45 entry 22.7 grams 2.5' barrels 1.5ft of load 37.5" penetration. Baker psi tested the frac lines after the RU. Handed the well over to Pure Energy Wireline. - Frac Stage #16 Total sand: 5428# 100 mesh, 76119#s 30/50 white sand. Open well @ 16:45 PM w/ 2260 psi. Broke @ 5577 psi @ 4.1 BPM, 158bbls slickwater to seat ball. ISIP 3392 psi (FG 0.9.98) 1 min SIP 3051 psi, 4 min SIP 2838 psi. Stage 62 bbl 15% HCL & Slickwater to seat ball @ 5 BPM & 5585 psi. Stage Lightning 17 pad @ 35.4 BPM @ 5697 psi. Stage Lightning 17, .5# 30/50 white sand @ 35.3 BPM, 5685 psi. Stage Slickwater spacer @ 35 BPM, 5530 psi. Stage Lightning 17, .5# 100 mesh @ 35.4 BPM, 5638 psi. Stage Lightning 17, 1#100 mesh @ 35 BPM, 5606 psi. Stage Lightning 17, .5# 30/50 white sand @ 35 BPM, 5952 psi. Stage Lightning 17, 1# 30/50 white sand @ 35BPM, 5664 psi. Stage Lightning 17, 2# 30/50 white sand @ 35.3 BPM, 5087 psi. Stage Lightning 17, 3# 30/50 white sand @ 33.4 BPM, 4805 psi. Stage Lightning 17, 3.5# 30/50 white sand @ 35.3 BPM, 4597 psi. Stage Lightning 17, 4# 30/50 white sand @ 35.6 BPM, 4519 psi. Stage Slickwater flush @ 35.8 BPM, 4449 psi. ISDP 5311 psi ( FG: .96) 5 min SIP 2752 psi, 10 min SIP 2582 psi, 15 min SIP 2513 psi. Treated w/ ave pressure of 5293 psi, max pressure 5952 psi. Ave rate of 35.1 BPM & Max rate of 35.8 BPM. - PU CCL, 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(18" total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. Open well @ 19:00. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 2 BPM and increase rate slowly until WL was able to maintain 150-170 fpm, 8 BPM @ 3640 psi. Pump WL down to 7505.5' & stop pumping. PUH & set Halliburton 10K CFP @ 7515'. PUH & perforate stage #17 @ 7480'-81.5', 7472.5'-74' & 7466.5'-68' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Frac Stage #17 Total sand: 5500# 100 mesh, 105602#s 30/50 white sand. Open well @ 22:15 PM w/ 2210 psi. Broke @ 6523 psi @ 6.3 BPM, 145bbls slickwater to seat ball. ISIP 0 psi (FG 0) 1 min SIP 0 psi, 4 min SIP 0 psi. Stage 55 bbl 15% HCL & Slickwater to seat ball @ 6.3 BPM & 6523 psi. Stage Lightning 17 pad @ 35.4 BPM @ 5412 psi. Stage Lightning 17, .5# 100 m white sand @ 35.5 BPM, 5525 psi. Stage Slickwater spacer @ 35 BPM, 5494 psi. Stage Lightning 17, .5# 100 mesh @ 35.2 BPM, 5486 psi. Stage Lightning 17, 1#100 mesh @ 35.2 BPM, 5550 psi. Stage Lightning 17, .5# 30/50 white sand @ 34.2 BPM, 5643 psi. Stage Lightning 17, 1# 30/50 white sand @ 35 BPM, 5700 psi. Stage Lightning 17, 2# 30/50 white sand @ 35 BPM, 5145 psi. Stage Lightning 17, 3# 30/50 white sand @ 35.3 BPM, 4907 psi. Stage Lightning 17, 4# 30/50 white sand @ 36.3 BPM, 4477 psi. Stage Lightning 17, 4# 30/50 white sand @ 36.3 BPM, 4477 psi. Stage Slickwater flush @ 36.5 BPM, 4454 psi. ISDP 3675 psi ( FG: .97) 5 min SIP 3285 psi, 10 min SIP 2950 psi, 15 min SIP 2768 psi. Treated w/ ave pressure of 5341 psi, max pressure 6872 psi. Ave rate of 34 BPM & Max rate of 38 BPM. - PU CCL, 3- 3 1/8th" ERHSC w/ 6 SPF @ 60° phasing(3-18" guns, total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 4.2 BPM and increase rate slowly until WL was able to maintain 200 fpm, 10 BPM @ 6300 psi. Pump WL down to 8143' & stop pumping. PUH & set Halliburton 10K CFP @ 8143'. PUH & perforate stage #14 @ 8090-91.5', 8032-33.5' & 7985-86.5' w/ 3 1/8th" ERHSC .45 entry 22.7 grams 2.5' barrels 1.5ft of load 37.5" penetration. 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL.

**Daily Cost:** \$0

**Cumulative Cost:** \$757,399

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**7/19/2012 Day: 15**

**Completion**

Rigless on 7/19/2012 - Perf and Frac Stages 18-20 and RD perf and Frac equipment - PU CCL, 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(18" total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. Open well @ 06:00. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 2 BPM and increase rate slowly until WL was able to maintain 150-170 fpm, 8 BPM @ 2600 psi. Pump WL down to 6924' & stop pumping. PUH & set Halliburton 10K CFP @ 6920'. PUH & perforate stage #20 @ 6885-

86.5', 6880-6881.5' & 6874-75.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Frac Stage #18 Total sand: 5457# 100 mesh, 110231#s 30/50 white sand. Open well @ 00:40 AM w/ 2111 psi. Broke @ 6516 psi @ 25.7 BPM, 139.3bbls slickwater to seat ball. ISIP 0 psi (FG 0) 1 min SIP 0 psi, 4 min SIP 0psi. Stage 139.3 bbl 15% HCL & Slickwater to seat ball @ 5.7 BPM & 4936 psi. Stage Lightning 17 pad @ 36.4 BPM @ 5340 psi. Stage Lightning 17, .5# 100 m white sand @ 36.5 BPM, 5290 psi. Stage Slickwater spacer @ 36.3 BPM, 5240 psi Stage Lightning 17, .5# 100 mesh @ 36 BPM, 5410 psi. Stage Lightning 17, 1#100 mesh @ 36.3 BPM, 5390 psi. Stage Lightning 17, .5# 30/50 white sand @ 36.1 BPM, 5850 psi. Stage Lightning 17, 1# 30/50 white sand @ 36.1 BPM, 5700 psi. Stage Lightning 17, 2# 30/50 white sand @ 36.5 BPM, 5230 psi. Stage Lightning 17, 3# 30/50 white sand @ 36.8 BPM, 5060 psi. Stage Lightning 17, 4# 30/50 white sand @ 37 BPM, 4850 psi. Stage Lightning 17, 5# 30/50 white sand @ 37 BPM, 4700 psi. Stage Slickwater flush @ 36.8 BPM, 4650 psi. ISDP 3308 psi ( FG: .97) 5 min SIP 2791 psi, 10 min SIP 2653 psi, 15 min SIP 2604 psi. Treated w/ ave pressure of 5267 psi, max pressure 6610 psi. Ave rate of 36 BPM & Max rate of 38 BPM. - PU CCL, 2 3/4" slick perf guns loaded w/ 6 SPF @ 60° phasing(18" total of 27 shots) & Halliburton CFP. Pressure test lubricator to 10000 psi for 5 min. Open well @ 02:30. RIH w/ WL & tie into X-over sub, correlate to CBL. Begin pumping w/ Baker Hughes @ 2 BPM and increase rate slowly until WL was able to maintain 150-170 fpm, 8 BPM @ 3100 psi. Pump WL down to 7144' & stop pumping. PUH & set Halliburton 10K CFP @ 7138'. PUH & perforate stage #19 @ 7085-86.5', 7080-81.5' & 7074-75.5' w/ 2 3/4" slick guns 16 gram 0.38 EH 35" penetration 6 SPF 60° phasing, total of 27 shots. Pumping 2 BPM during perforating. POOH w/ WL. - Frac Stage #19 Total sand: 5473# 100 mesh, 111178#s 30/50 white sand. Open well @ 04:00 AM w/ 2406 psi. Broke @ 7477 psi @ 29.8 BPM, 28.4 bbls slickwater to seat ball. ISIP 0 psi (FG 0) 1 min SIP 0 psi, 4 min SIP 0psi. Stage 60 bbl 15% HCL & Slickwater to seat ball @ 6.4 BPM & 6550 psi. Stage Lightning 17 pad @ 35.6 BPM @ 5370 psi. Stage Lightning 17, .5# 100 m white sand @ 37.6 BPM, 5540 psi. Stage Slickwater spacer @ 37.3 BPM, 5620 psi Stage Lightning 17, .5# 100 mesh @ 37.2 BPM, 5876 psi. Stage Lightning 17, 1#100 mesh @ 37.2 BPM, 5930 psi. Stage Lightning 17, .5# 30/50 white sand @ 37.1 BPM, 6250 psi. Stage Lightning 17, 1# 30/50 white sand @ 37.2 BPM, 5650 psi. Stage Lightning 17, 2# 30/50 white sand @ 37.5 BPM, 5090 psi. Stage Lightning 17, 3# 30/50 white sand @ 37.7 BPM, 4860 psi. Stage Lightning 17, 4# 30/50 white sand @ 37.6 BPM, 4370 psi. Stage Lightning 17, 5# 30/50 white sand @ 37 BPM, 4700 psi. Stage Slickwater flush @ 37.6 BPM, 4286 psi. ISDP 3090 psi ( FG: .93) 5 min SIP 2503 psi, 10 min SIP 2353 psi, 15 min SIP 2283 psi. Treated w/ ave pressure of 5482 psi, max pressure 7477 psi. Ave rate of 35 BPM & Max rate of 38 BPM. - Frac Stage #20 Total sand: 5473# 100 mesh, 111178#s 30/50 white sand. Open well @ 07:15 AM w/ 2121 psi. Broke @ 6179 psi @ 6.2 BPM, 131.6 bbls slickwater to seat ball. ISIP 3295 psi (FG.97) 1 min SIP 2989 psi, 4 min SIP 2577 psi. Stage 45.5 bbl 15% HCL & Slickwater to seat ball @ 12.8 BPM & 4300 psi. Stage Lightning 17 pad @ 36.2 BPM @ 5450 psi. Stage Lightning 17, .5# 30/50 white sand @ 36.0 BPM, 5470 psi. Stage Slickwater spacer @ 35.8 BPM, 5440 psi Stage Lightning 17, .5# 100 mesh @ 35.7 BPM, 5590 psi. Stage Lightning 17, 1#100 mesh @ 35.8 BPM, 5870 psi. Stage Lightning 17, .5# 30/50 white sand @ 35.7 BPM, 5700 psi. Stage Lightning 17, 1# 30/50 white sand @ 35.9 BPM, 5240 psi. Stage Lightning 17, 2# 30/50 white sand @ 36.1 BPM, 4750 psi. Stage Lightning 17, 3# 30/50 white sand @ 36.4 BPM, 4570 psi. Stage Lightning 17, 4# 30/50 white sand @ 36.6 BPM, 4370 psi. Stage Lightning 17, 5# 30/50 white sand @ 35.6 BPM, 4280 psi. Stage Slickwater flush @ 35.7 BPM, 4240 psi. ISDP 3190 psi ( FG: .95) 5 min SIP 2694 psi, 10 min SIP 2593 psi, 15 min SIP 2546 psi. Treated w/ ave pressure of 5287 psi, max pressure 7499 psi. Ave rate of 35.9 BPM & Max rate of 36.6 BPM. - RD Baker Hughes frac equipment & Pure energy WLT and move off location. - Check pressure on well, 2200 psi. Open well through flowback equipment on a 12/64 choke. Flowing @ approx 2.5 to 3 BPM. Continue to flow well.

**Daily Cost:** \$0

**Cumulative Cost:** \$1,362,227

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**7/23/2012 Day: 16**

**Completion**

WWS #5 on 7/23/2012 - Aaron Manning day time supervisor, Mike Snow night time supervisor. RU NU TEST rih 2 3/8 tbg - Continue to flowback well on 12/64 choke. Shut well in @ 7:15 AM. Pressure had dropped to 450 psi flowing pressure. Recovered total of 5387 bbls water. Waiting on transfer to get total oil recovery numbers. - Pressure test bottom set of pipe rams w/ low test of 250 psi for 5 min & high test of 5000 psi for 10 min. Pressure test flowback equipment w/ low test of 250-300 psi for 5 min & high test of 5000 psi for 10 min. - MIRU WWS #7. ND Weatherford 10K manual frac valve, flow cross & HCR valve. NU Weatherford 5K-10K X-over, 5K double pipe rams & flow cross. MIRU Perforators WLT. - Wait for Halliburton completion tools to deliver setting sleeve for WL solid composite plug. Plug was left after frac but no setting tool. - MU setting tool & solid composite plug. PU CCL, weight bar, & CBP w/ setting tool. Pressure test WL lubricator and 5K well control stack to 5000 psi for 5 min. Equalize well pressure/lubricator, 850 psi. RIH w/ CBP & set @ 6279'. Open well through flowback equipment while POOH w/ WL. Leave well open through flowback when out of hole to let well finish bleeding off. RD WLT. - MU test sub in hanger w/ TIW valve in top. Set hanger in wellhead. Pressure test each set of pipe rams & TIW valve w/ low of 250 psi-300 psi for 5 min & high test of 5000 psi for 10 min. Bottom set of pipe rams passed low test but not high test. - RU rig floor & tbg equipment. Talley & MU BHA as follows: 3.795" four blade TTS mill, TTS dual back pressure valve, TTS dart valve, XO 2 3/8 PAC by 2 3/8 PH-6, 1 Joint 2 3/8 5.95 # p 110 Tbg ,R profile nipple,Rih 28 joints 2 3/8 5.95 # p 110 tbg ,tongs broke 1.5 hrs down time replace tongs Rih 71 joints 2 3/8 5.95# p 110 tbg Crew Change - Change out 2 3/8" ram blocks on bottom set of pipe rams.

**Daily Cost:** \$0

**Cumulative Cost:** \$1,566,813

## 7/24/2012 Day: 17

## Completion

WWS #5 on 7/24/2012 - Aaron Manning day time supervisor, Mike Snow night time supervisor. Continue drill out plugs. - Ru PS ,establish circulation 3 bpm drill plug 6279,7 min ,pump sweep 30 bbls,Rih tag 6905 swivel up was down drill plug 6920, 21 min,pump 10 bbl poly sweep, talley next row. PU tbg & swivel down to plug #2 @ 7138' (7:33 AM) (231- jts). Drill out plug in 20 min. Pump 10 bbl polymer sweep. Started to see medium sand in returns. Continue PU tbg & swivel down to plug #3 @ 7307' (8:38 AM) (236- jts). Drill out plug in 26 min. Pump 10 bbl polymer sweep. Continue PU tbg & swivel down, tag 30' of fill on top of plug (7485'). Swivel down to plug #4 @ 7515' (9:52 AM) (243- jts). Drill out plug in 29 min. Pump 10 bbl polymer sweep. Shut down power swivel to check fluids. Continue PU tbg & swivel down to plug # 5 7683' (11:45)(248- jts). Clean out sand all the way down. - Oil at surface ru pump and lines circ well 3 bpm 20 min 10 bbl oil recovered to tanks ,RIH 2 3/8 5.95 p 110 tbg install second r nipple top of joint 194 tag kill plug 6279' joint 203 , - Change tower crew on rig. Drill out plug in 34 min. Pump 10 bbl polymer sweep. Batch water tanks w/ clay treat @ 1 gpt & pipe-on-pipe FR @ .25 gpt. Continue PU tbg & swivel down to plug #6 @ 7895' (1:05 PM) (255- jts). Pump 10 bbl polymer sweep. Continue PU tbg & swivel down to plug #7 @ 8144' (2:50 PM) (263- jts). Drill out plug in 28 min. Pump 10 bbl polymer sweep. Continue PU tbg & swivel down to plug #8 @ 8325' (4:16 PM) (269- jts). Drill out plug in 23 min. Pump 10 bbl polymer sweep. Continue PU tbg & swivel down to plug #9 @ 8520' (5:20 pm) (275- jts). Drill out plug in 38 min. Pump 10 bbl polymer sweep. Continue PU tbg & swivel down to plug #10 @ 8689' (6:25 PM) (281- jts). Drill out plug in 28 min. Pump 10 bbl polymer sweep. Continue PU tbg & swivel down to plug #11 @ 8901' (7:44)(287-jts) Drill out plug in 29 min, Pump 10 bbl polymer sweep.Check fluids in power swivel, Continue PU tbg A swivel down to plug # 12 @ 9072' (8:52)(293-jst) Drill out plug 21 min ,Pump 10 bbl polymer sweep. Continue PU tbg & swivel down to plug # 13 @ 9265'(10:01)(299-jst) Drill out plug 33 min .Pump 10 bbl polymer sweep ,continue PU tbg & swivel down to plug 14, 9457, (11:22) (306jts)drill plug 33 min pump 10 polymer sweep,

**Daily Cost:** \$0

**Cumulative Cost:** \$1,618,788

**7/25/2012 Day: 18****Completion**

WWS #5 on 7/25/2012 - Continue Drill plugs, LD 2 3/8 work string - Install Final BHA 2 7/8 wireline re entry collar 6' 2 7/8 n-80 pup 2 2/8 by 2 3/8 xo 2 3/8 xn nipple 8' 2 3/8 n-80 pup with pressure bombs inside 2 3/8 by 2 7/8 xo 6' 2 7/8 n-80 pup AS1 packer on off tool 4' 2 7/8 tbg pup jet pump 2 7/8 6' n-80 pup pump 40 bbl top kill rih 16 joints well flowing install washington head rubber crew change - Pump 20 bbl polymer sweep and circulate bottoms up while rotating and working tbg. Change out Washington head rubber. Pump additional 15 bbl polymer sweep and circulate well clean w/ 200 BW while rotating and working tbg. - Hang swivel back in derrick. Tie rig back double line. LD 114- jts tbg on pipe racks (225- jts in hole, EOT @ 6976'). RU power swivel. - Batch & pump 20 bbl polymer sweep. Circulate well clean w/ 150 BW while rotating and working tbg. - Crew Change ,Continue PU tbg & Swivel to plug # 15, 9662 (12:47) (313 jts) 6' sand on plug Drill out plug 43 min pump 10 bbl polymer sweep, Continue PU tbg and swivel to plug # 16, 9835' (2:20)(318-jts) drill out plug 16 min ,Continue PU tbg & swivel to plug # 17 Last one 10015',(3:13am)(324-jts) drill on plug 13 minutes take kick stuck pipe pump 100 bbl clear 4.5 casing swivel down, single line rig swivel up work pipe and circulate well pipe free pulled 90k continue drill plug 10015 (4:40am) 57 min drill time on last plug, continue clean out to 10475 PBDT. - RD power swivel and rack out. Continue LD workstring (total of 353- total jts on pipe rack) break apart & LD BHA. - Make up Bha Wait on pressure bombs to arrive loc - Unload 2 7/8" J-55 6.5# 8rd EUE tbg onto pipe racks. X-over tbg equipment from 2 3/8" to 2 7/8". Change out pipe rams to 2 7/8" ram blocks (2 sets). Pressure test each set of pipe rams w/ low test of 250-300 psi for 5 min & high test of 5,000 psi for 10 min. Load 2 3/8" PH-6 (Weatherford work string) onto trailers and return to Runners yard.

**Daily Cost:** \$0**Cumulative Cost:** \$2,048,128**7/26/2012 Day: 19****Completion**

WWS #5 on 7/26/2012 - RIH w/ production tbg. Set AS1-X packer w/ CE @ 6004' w/ 13,000#s compression. ND BOP stack. NU wellhead & pressure test to 5000 psi. RDMOSU. RD flowback iron. - flow well to tanks unload oil and gas 1.5 hrs, Pump 140 bbl kill water injection rt 3 bpm 700 psi isip 700 psi 15 min , order 10# brine water,flow back well dead PU tbg (95-jts 2 7/8 6.5# J-55 tbg circulate hole Talley pipe ,continue PU tbg 190-jts circulate bottoms up. - RU sandline. RIH w/ tbg drift on sandline to packer. POOH w/ sandline. LD tbg drift and RD sandline. - PU wellhead hanger w/ two-way check valve on a jt of tbg. Set Weatherford Arrowset 1-X packer w/ CE @ 6004.65' w/ 13,000#s compression, EOT @ 6030.58'. Land hanger in tbg head. LD jt of tbg. RD rig floor. ND Washington head, 5K flow cross, 5K double pipe rams & 10K manual frac valve. NU B1 adapter w/ 2 -9/16" gate valve on tbg head. Pressure test wellhead flange, hanger & gate valve to 5,000 psi for 10 min. - Rack out pump lines & pump. Clean up location. RDSU. Steam off equipment, tools & rig. - pump 40 bbl kill continue in hole pick up 8 joints 2 7/8 6.5 J-55 tbg well flowing up tbg stab tiw valve SI tbg

**Daily Cost:** \$0**Cumulative Cost:** \$3,129,032**ertinent Files: Go to File list**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**CONFIDENTIAL**  
FORM 3160-4 PROVIDED  
OMB NO. 1014-0137  
Expires: July 31, 2010

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other b. Type of Completion: <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr., Other: _____						5. Lease Serial No. ML-21835			
2. Name of Operator NEWFIELD EXPLORATION COMPANY						6. If Indian, Allottee or Tribe Name NA			
3. Address 1401 17TH ST. SUITE 1000 DENVER, CO 80202						7. Unit or CA Agreement Name and No. GMBU (GRRV)			
3a. Phone No. (include area code) (435) 646-3721						8. Lease Name and Well No. GMBU 2-36-8-15H			
4. Location of Well (Report location clearly and in accordance with Federal requirements)*  At surface 934' FNL & 2061' FEL (NW/NE) SEC. 36, T8S, R15E (ML-21835)  At top prod. interval reported below 1778' FNL & 2503' FEL (SW/NE) SEC. 36, T8S, R15E (ML-21835) At total depth 199' FSL & 111' FWL (SE/SW) SEC. 36, T8S, R15E (ML-21835) <i>BHL by HSM</i>						9. AFI Well No. 43-013-51065			
10. Field and Pool or Exploratory MONUMENT BUTTE						11. Sec., T., R., M., on Block and Survey or Area SEC. 36, T8S, R15E			
12. County or Parish DUCHESNE						13. State UT			
14. Date Spudded 05/23/2012		15. Date T.D. Reached 07/02/2012		16. Date Completed 07/29/2012 <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod.		17. Elevations (DF, RKB, RT, GL)* 5774' GL 5787' KB			
18. Total Depth: MD 10580' TVD 6125'		19. Plug Back T.D.: MD 10475' TVD 6125'		20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND			
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit copy)									
23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	8-5/8" J-55	24#	0	516'		235 CLASS "G"			
6-1/4"	4-1/2" P-110	13.5#	0	10542'		400 EXTENDA		1800'	
						505 ELASTISE			
						50 ELASTISEA			
24. Tubing Record									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
2-7/8"	EOT @ 6031'	Arrowset @ 6001'							
25. Producing Intervals					26. Perforation Record				
Formation		Top	Bottom	Perforated Interval		Size	No. Holes	Perf. Status	
A) Green River		6874'	10466'	10174-10466'		.125"	36		
B)				6874-7482' & 8214-9988'		.38"	378		
C)				7642-8092'		.45"	81		
D)									
27. Acid, Fracture, Treatment, Cement Squeeze, etc.									
Depth Interval			Amount and Type of Material						
8935-10466'			Frac w/ 227386# 30/50 white sand & 58815# 100 mesh; 34939 bbls Slickwater fluid; 14 stages.						
6874-7862'			Frac w/ 804578# 30/50 white sand & 97737# 100 mesh; 14982 bbls Slickwater/Lighting 17 fluid; 6 stages.						
28. Production - Interval A									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
7/30/12	8/9/12	24	➔	168	0	98			JET PUMP
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➔					PRODUCING	
28a. Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			➔						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➔						

\*(See instructions and spaces for additional data on page 2)

**RECEIVED**  
OCT 0 2012

## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

## 29. Disposition of Gas (Solid, used for fuel, vented, etc.)

SOLD AND USED FOR FUEL

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

## GEOLOGICAL MARKERS

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
GREEN RIVER	6874'	10466'		GARDEN GULCH MARKER GARDEN GULCH 1	3852' 4081'
				GARDEN GULCH 2 DOUGLAS CREEK	4198' 4892'
				B-LIMESTONE CASTLE PEAK	5268' 5789'
				BASAL CARBONATE	6279'

## 32. Additional remarks (include plugging procedure):

## 33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd.)     
 ☐ Geologic Report     
 ☐ DST Report     
 ☒ Directional Survey  
☐ Sundry Notice for plugging and cement verification     
 ☐ Core Analysis     
 ☐ Other:

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Jennifer PeatrossTitle Production TechnicianSignature J PeatrossDate 10/22/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)



**Weatherford®**

## **NEWFIELD EXPLORATION CO.**

**DUCHESNE COUNTY, UT**

**GMBU 2-36-8-15H**

**GMBU 2-36-8-15H**

**GMBU 2-36-8-15H**

**Survey: Survey #1**

## **Standard Survey Report**

**19 June, 2012**



**Weatherford®**



**Weatherford**

# Weatherford International Ltd.

## Survey Report



**Weatherford**

Company: NEWFIELD EXPLORATION CO.  
Project: DUCHESNE COUNTY, UT  
Site: GMBU 2-36-8-15H  
Well: GMBU 2-36-8-15H  
Wellbore: GMBU 2-36-8-15H  
Design: GMBU 2-36-8-15H

Local Co-ordinate Reference: Well GMBU 2-36-8-15H  
TVD Reference: KB @ 5791.50ft (CAPSTAR 328)  
MD Reference: KB @ 5791.50ft (CAPSTAR 328)  
North Reference: True  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

Project	DUCHESNE COUNTY, UT		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site	GMBU 2-36-8-15H		
Site Position:		Northing:	7,200,287.41 usft
From:	Lat/Long	Easting:	2,010,206.26 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16"
		Latitude:	40° 4' 44.950 N
		Longitude:	110° 10' 42.220 W
		Grid Convergence:	0.85 °

Well	GMBU 2-36-8-15H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	40° 4' 44.950 N
		Longitude:	110° 10' 42.220 W
		Ground Level:	5,773.50 ft

Wellbore	GMBU 2-36-8-15H		
Magnetics	Model Name	Sample Date	Declination
	BGGM2011	5/24/2012	11.28
			Dip Angle
			65.76
			Field Strength
			52,120

Design	GMBU 2-36-8-15H		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			201.30

Survey Program	Date 6/19/2012		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
553.00	10,580.00	Survey #1 (GMBU 2-36-8-15H)	MWD
			Description
			MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Rate
(ft)			(ft)			(ft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GMB 2-36-8-15									
3.21	0.01	44.78	3.21	0.00	0.00	0.00	0.22	0.22	0.00
553.00	1.22	44.78	552.96	4.18	4.15	-5.40	0.22	0.22	0.00
643.00	1.25	42.28	642.94	5.59	5.48	-7.20	0.07	0.03	-2.78
734.00	1.19	33.16	733.92	7.11	6.67	-9.05	0.22	-0.07	-10.02
824.00	1.19	41.41	823.90	8.59	7.80	-10.84	0.19	0.00	9.17
945.00	1.44	29.16	944.87	10.86	9.37	-13.52	0.31	0.21	-10.12
990.00	0.88	29.41	989.86	11.66	9.81	-14.43	1.24	-1.24	0.56
1,081.00	0.25	317.78	1,080.85	12.41	10.02	-15.21	0.92	-0.69	-78.71
1,172.00	0.19	261.90	1,171.85	12.54	9.74	-15.22	0.23	-0.07	-61.41
1,262.00	0.38	276.90	1,261.85	12.56	9.30	-15.07	0.23	0.21	16.67
1,353.00	0.19	260.53	1,352.85	12.57	8.85	-14.92	0.23	-0.21	-17.99

**Weatherford****Weatherford International Ltd.****Survey Report****Weatherford**

**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
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**Well:** GMBU 2-36-8-15H  
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**Local Co-ordinate Reference:** Well GMBU 2-36-8-15H  
**TVD Reference:** KB @ 5791.50ft (CAPSTAR 328)  
**MD Reference:** KB @ 5791.50ft (CAPSTAR 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

**Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,444.00	0.19	237.78	1,443.85	12.46	8.57	-14.72	0.08	0.00	-25.00
1,534.00	0.25	273.65	1,533.85	12.39	8.25	-14.54	0.16	0.07	39.86
1,625.00	0.31	246.28	1,624.85	12.31	7.83	-14.31	0.16	0.07	-30.08
1,716.00	0.69	230.28	1,715.84	11.86	7.18	-13.66	0.44	0.42	-17.58
1,806.00	0.88	216.91	1,805.84	10.96	6.35	-12.52	0.29	0.21	-14.86
1,897.00	1.06	223.28	1,896.82	9.79	5.35	-11.06	0.23	0.20	7.00
1,987.00	1.31	213.91	1,986.80	8.33	4.21	-9.29	0.35	0.28	-10.41
2,078.00	1.38	219.78	2,077.78	6.62	2.92	-7.23	0.17	0.08	6.45
2,169.00	0.50	226.91	2,168.76	5.51	1.93	-5.84	0.97	-0.97	7.84
2,259.00	0.69	178.16	2,258.76	4.70	1.66	-4.98	0.58	0.21	-54.17
2,350.00	1.00	178.16	2,349.75	3.36	1.71	-3.75	0.34	0.34	0.00
2,439.00	1.25	172.41	2,438.73	1.62	1.86	-2.18	0.31	0.28	-6.46
2,531.00	1.50	179.28	2,530.71	-0.58	2.01	-0.19	0.33	0.27	7.47
2,622.00	0.63	196.66	2,621.69	-2.25	1.88	1.41	1.01	-0.96	19.10
2,712.00	1.00	176.53	2,711.68	-3.51	1.78	2.62	0.51	0.41	-22.37
2,803.00	1.31	176.41	2,802.66	-5.34	1.90	4.28	0.34	0.34	-0.13
2,893.00	1.56	181.28	2,892.63	-7.59	1.93	6.37	0.31	0.28	5.41
2,983.00	0.81	190.03	2,982.61	-9.44	1.80	8.14	0.85	-0.83	9.72
3,073.00	0.56	297.90	3,072.61	-9.86	1.30	8.72	1.24	-0.28	119.86
3,164.00	0.44	265.40	3,163.61	-9.68	0.56	8.82	0.33	-0.13	-35.71
3,255.00	1.00	246.66	3,254.60	-10.02	-0.52	9.53	0.66	0.62	-20.59
3,391.00	0.81	240.66	3,390.58	-10.97	-2.45	11.11	0.16	-0.14	-4.41
3,436.00	1.00	226.66	3,435.58	-11.39	-3.01	11.71	0.64	0.42	-31.11
3,527.00	1.27	224.28	3,526.56	-12.66	-4.29	13.35	0.30	0.30	-2.62
3,617.00	0.50	241.03	3,616.55	-13.56	-5.33	14.57	0.89	-0.86	18.61
3,707.00	0.75	217.03	3,706.54	-14.22	-6.03	15.44	0.40	0.28	-26.67
3,798.00	1.13	220.53	3,797.53	-15.38	-6.97	16.86	0.42	0.42	3.85
3,888.00	1.38	216.03	3,887.51	-16.93	-8.19	18.75	0.30	0.28	-5.00
3,979.00	0.56	239.16	3,978.50	-18.04	-9.21	20.16	0.98	-0.90	25.42
4,070.00	1.06	226.41	4,069.49	-18.85	-10.21	21.27	0.58	0.55	-14.01
4,160.00	1.50	225.78	4,159.46	-20.25	-11.65	23.10	0.49	0.49	-0.70
4,251.00	0.81	214.66	4,250.44	-21.61	-12.87	24.81	0.79	-0.76	-12.22
4,341.00	1.00	190.03	4,340.43	-22.90	-13.37	26.20	0.48	0.21	-27.37
4,432.00	1.38	176.53	4,431.41	-24.78	-13.44	27.97	0.52	0.42	-14.84
4,523.00	0.94	177.03	4,522.39	-26.62	-13.34	29.65	0.48	-0.48	0.55
4,613.00	1.06	179.03	4,612.38	-28.19	-13.29	31.09	0.14	0.13	2.22
4,704.00	1.56	187.78	4,703.36	-30.26	-13.44	33.07	0.59	0.55	9.62
4,795.00	1.38	167.78	4,794.33	-32.56	-13.37	35.19	0.59	-0.20	-21.98
4,885.00	1.00	188.53	4,884.31	-34.39	-13.26	36.86	0.63	-0.42	23.06
5,021.00	2.13	210.28	5,020.26	-37.75	-14.71	40.51	0.92	0.83	15.99
5,112.00	1.56	240.53	5,111.21	-39.82	-16.64	43.14	1.22	-0.63	33.24
5,202.00	2.00	243.53	5,201.17	-41.12	-19.12	45.26	0.50	0.49	3.33
5,293.00	1.19	258.53	5,292.13	-42.02	-21.46	46.94	0.99	-0.89	16.48
5,384.00	1.25	314.40	5,383.11	-41.51	-23.10	47.07	1.26	0.07	61.40
5,474.00	1.25	300.40	5,473.09	-40.33	-24.65	46.52	0.34	0.00	-15.56
5,562.00	1.49	291.77	5,561.07	-39.42	-26.54	46.36	0.36	0.27	-9.81
5,611.00	2.38	281.78	5,610.04	-38.97	-28.12	46.53	1.94	1.82	-20.39
5,656.00	4.89	249.27	5,654.95	-39.46	-30.83	47.97	7.01	5.58	-72.24
5,701.00	7.54	227.79	5,699.69	-42.12	-34.82	51.89	7.74	5.89	-47.73
5,747.00	11.00	221.53	5,745.08	-47.44	-39.96	58.71	7.82	7.52	-13.61
5,792.00	15.19	217.53	5,788.90	-55.33	-46.40	68.41	9.52	9.31	-8.89
5,837.00	19.81	213.03	5,831.81	-66.41	-54.16	81.54	10.69	10.27	-10.00
5,883.00	24.69	211.78	5,874.37	-81.12	-63.47	98.63	10.66	10.61	-2.72
5,928.00	28.81	209.28	5,914.55	-98.57	-73.73	118.62	9.49	9.16	-5.56

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**Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,973.00	33.43	205.95	5,953.06	-119.19	-84.46	141.73	10.95	10.27	-7.40
6,019.00	38.88	203.41	5,990.19	-143.85	-95.75	168.80	12.29	11.85	-5.52
6,062.00	43.88	204.53	6,022.45	-169.81	-107.31	197.19	11.75	11.63	2.60
6,108.00	45.94	206.16	6,055.03	-199.15	-121.22	229.58	5.13	4.48	3.54
6,153.00	47.13	206.66	6,085.98	-228.40	-135.74	262.11	2.76	2.64	1.11
6,198.00	51.69	207.78	6,115.25	-258.78	-151.38	296.09	10.31	10.13	2.49
6,244.00	57.75	208.16	6,141.81	-291.93	-168.99	333.37	13.19	13.17	0.83
6,289.00	59.41	207.50	6,165.27	-325.88	-186.91	371.52	3.90	3.69	-1.47
6,334.00	65.41	207.28	6,186.10	-361.28	-205.25	411.16	13.34	13.33	-0.49
6,380.00	71.31	207.28	6,203.06	-399.27	-224.84	453.66	12.83	12.83	0.00
6,425.00	74.06	207.16	6,216.45	-437.47	-244.49	496.39	6.12	6.11	-0.27
6,470.00	78.94	206.53	6,226.95	-476.50	-264.24	539.93	10.93	10.84	-1.40
6,515.00	82.63	206.28	6,234.15	-516.27	-283.99	584.16	8.22	8.20	-0.56
6,561.00	82.56	205.95	6,240.08	-557.23	-304.07	629.62	0.73	-0.15	-0.72
6,606.00	86.88	205.91	6,244.22	-597.52	-323.66	674.27	9.60	9.60	-0.09
6,640.00	91.26	206.87	6,244.77	-627.97	-338.76	708.12	13.19	12.88	2.82
6,670.00	90.05	206.65	6,244.43	-654.75	-352.27	737.99	4.10	-4.03	-0.73
6,700.00	84.69	205.78	6,245.81	-681.63	-365.50	767.83	18.10	-17.87	-2.90
6,730.00	85.19	205.66	6,248.45	-708.55	-378.47	797.63	1.71	1.67	-0.40
6,760.00	88.25	204.91	6,250.17	-735.63	-391.26	827.50	10.50	10.20	-2.50
6,790.00	89.94	204.53	6,250.64	-762.87	-403.81	857.44	5.77	5.63	-1.27
6,820.00	90.19	205.16	6,250.61	-790.10	-416.41	887.38	2.26	0.83	2.10
6,850.00	92.44	205.41	6,249.92	-817.22	-429.22	917.30	7.55	7.50	0.83
6,880.00	92.19	204.78	6,248.71	-844.36	-441.93	947.21	2.26	-0.83	-2.10
6,912.00	91.63	205.16	6,247.64	-873.35	-455.43	979.13	2.11	-1.75	1.19
6,957.00	91.19	204.53	6,246.54	-914.18	-474.34	1,024.03	1.71	-0.98	-1.40
7,003.00	90.13	204.41	6,246.01	-956.04	-493.39	1,069.95	2.32	-2.30	-0.26
7,048.00	90.31	204.16	6,245.83	-997.06	-511.90	1,114.89	0.68	0.40	-0.56
7,093.00	91.75	204.78	6,245.02	-1,038.01	-530.53	1,159.81	3.48	3.20	1.38
7,139.00	93.19	205.78	6,243.04	-1,079.56	-550.16	1,205.66	3.81	3.13	2.17
7,184.00	93.94	206.78	6,240.24	-1,119.83	-570.04	1,250.40	2.77	1.67	2.22
7,229.00	92.81	206.41	6,237.59	-1,160.00	-590.15	1,295.13	2.64	-2.51	-0.82
7,274.00	92.75	205.78	6,235.41	-1,200.37	-609.92	1,339.92	1.40	-0.13	-1.40
7,320.00	93.25	205.53	6,233.00	-1,241.77	-629.81	1,385.72	1.21	1.09	-0.54
7,365.00	94.00	205.41	6,230.16	-1,282.32	-649.12	1,430.51	1.69	1.67	-0.27
7,410.00	94.30	205.74	6,226.90	-1,322.80	-668.50	1,475.27	0.99	0.67	0.73
7,456.00	90.06	203.78	6,225.15	-1,364.53	-687.74	1,521.14	10.15	-9.22	-4.26
7,501.00	89.69	204.16	6,225.25	-1,405.65	-706.03	1,566.09	1.18	-0.82	0.84
7,546.00	89.63	203.91	6,225.52	-1,446.75	-724.35	1,611.04	0.57	-0.13	-0.56
7,591.00	90.00	203.28	6,225.66	-1,487.99	-742.37	1,656.00	1.62	0.82	-1.40
7,637.00	89.31	202.78	6,225.94	-1,530.32	-760.36	1,701.98	1.85	-1.50	-1.09
7,682.00	91.47	205.40	6,225.63	-1,571.39	-778.73	1,746.92	7.55	4.80	5.82
7,727.00	91.88	207.91	6,224.32	-1,611.59	-798.90	1,791.70	5.65	0.91	5.58
7,773.00	91.94	207.91	6,222.79	-1,652.22	-820.42	1,837.37	0.13	0.13	0.00
7,818.00	91.88	206.41	6,221.29	-1,692.23	-840.95	1,882.11	3.33	-0.13	-3.33
7,863.00	91.81	205.28	6,219.84	-1,732.71	-860.56	1,926.94	2.51	-0.16	-2.51
7,909.00	91.10	203.74	6,218.67	-1,774.55	-879.64	1,972.85	3.69	-1.54	-3.35
7,954.00	91.75	202.78	6,217.55	-1,815.88	-897.40	2,017.81	2.58	1.44	-2.13
7,999.00	91.81	203.91	6,216.15	-1,857.17	-915.22	2,062.76	2.51	0.13	2.51
8,044.00	92.56	206.16	6,214.44	-1,897.91	-934.25	2,107.63	5.27	1.67	5.00
8,090.00	92.19	204.91	6,212.53	-1,939.38	-954.06	2,153.46	2.83	-0.80	-2.72
8,135.00	92.75	205.41	6,210.59	-1,980.08	-973.18	2,198.32	1.67	1.24	1.11
8,180.00	91.25	206.66	6,209.02	-2,020.48	-992.91	2,243.14	4.34	-3.33	2.78
8,226.00	92.88	208.91	6,207.36	-2,061.15	-1,014.34	2,288.81	6.04	3.54	4.89



## Weatherford International Ltd.

## Survey Report



Company: NEWFIELD EXPLORATION CO.  
Project: DUCHESNE COUNTY, UT  
Site: GMBU 2-36-8-15H  
Well: GMBU 2-36-8-15H  
Wellbore: GMBU 2-36-8-15H  
Design: GMBU 2-36-8-15H

Local Co-ordinate Reference: Well GMBU 2-36-8-15H  
TVD Reference: KB @ 5791.50ft (CAPSTAR 328)  
MD Reference: KB @ 5791.50ft (CAPSTAR 328)  
North Reference: True  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

## Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,271.00	92.75	208.91	6,205.15	-2,100.49	-1,036.07	2,333.36	0.29	-0.29	0.00
8,316.00	91.31	207.78	6,203.56	-2,140.07	-1,057.42	2,377.99	4.07	-3.20	-2.51
8,361.00	92.69	208.66	6,201.99	-2,179.70	-1,078.68	2,422.63	3.64	3.07	1.96
8,407.00	92.15	210.44	6,200.05	-2,219.68	-1,101.35	2,468.11	4.04	-1.17	3.87
8,452.00	91.25	209.91	6,198.71	-2,258.56	-1,123.96	2,512.55	2.32	-2.00	-1.18
8,497.00	92.38	209.91	6,197.29	-2,297.55	-1,146.39	2,557.02	2.51	2.51	0.00
8,543.00	92.13	209.53	6,195.48	-2,337.47	-1,169.17	2,602.49	0.99	-0.54	-0.83
8,588.00	92.00	208.53	6,193.85	-2,376.79	-1,191.00	2,647.05	2.24	-0.29	-2.22
8,633.00	92.31	208.06	6,192.16	-2,416.38	-1,212.31	2,691.68	1.25	0.69	-1.04
8,695.00	91.75	207.41	6,189.97	-2,471.22	-1,241.15	2,753.25	1.38	-0.90	-1.05
8,740.00	92.13	208.03	6,188.44	-2,511.04	-1,262.07	2,797.95	1.62	0.84	1.38
8,785.00	91.82	207.61	6,186.89	-2,550.81	-1,283.05	2,842.63	1.16	-0.69	-0.93
8,830.00	92.00	206.91	6,185.39	-2,590.79	-1,303.65	2,887.36	1.61	0.40	-1.56
8,876.00	92.69	207.53	6,183.51	-2,631.66	-1,324.68	2,933.07	2.02	1.50	1.35
8,921.00	92.13	207.53	6,181.62	-2,671.53	-1,345.46	2,977.77	1.24	-1.24	0.00
8,966.00	91.38	207.53	6,180.24	-2,711.42	-1,366.25	3,022.48	1.67	-1.67	0.00
9,012.00	92.19	209.03	6,178.81	-2,751.91	-1,388.03	3,068.12	3.70	1.76	3.26
9,057.00	92.38	209.16	6,177.01	-2,791.20	-1,409.89	3,112.67	0.51	0.42	0.29
9,102.00	92.13	208.28	6,175.24	-2,830.63	-1,431.50	3,157.25	2.03	-0.56	-1.96
9,148.00	92.94	207.66	6,173.21	-2,871.22	-1,453.05	3,202.90	2.22	1.76	-1.35
9,193.00	89.75	205.91	6,172.15	-2,911.37	-1,473.32	3,247.67	8.08	-7.09	-3.89
9,238.00	89.62	206.07	6,172.40	-2,951.82	-1,493.04	3,292.52	0.46	-0.29	0.36
9,283.00	89.75	206.41	6,172.64	-2,992.18	-1,512.94	3,337.35	0.81	0.29	0.76
9,329.00	90.06	207.16	6,172.72	-3,033.24	-1,533.67	3,383.14	1.76	0.67	1.63
9,374.00	90.19	207.16	6,172.62	-3,073.28	-1,554.21	3,427.90	0.29	0.29	0.00
9,419.00	91.00	207.28	6,172.16	-3,113.30	-1,574.79	3,472.66	1.82	1.80	0.27
9,465.00	91.06	206.91	6,171.33	-3,154.24	-1,595.74	3,518.42	0.81	0.13	-0.80
9,510.00	92.75	206.78	6,169.83	-3,194.37	-1,616.05	3,563.18	3.77	3.76	-0.29
9,555.00	91.88	206.91	6,168.02	-3,234.49	-1,636.35	3,607.93	1.95	-1.93	0.29
9,601.00	91.69	207.28	6,166.58	-3,275.42	-1,657.29	3,653.68	0.90	-0.41	0.80
9,646.00	91.25	207.66	6,165.43	-3,315.33	-1,678.05	3,698.40	1.29	-0.98	0.84
9,691.00	92.00	207.16	6,164.15	-3,355.26	-1,698.75	3,743.13	2.00	1.67	-1.11
9,736.00	90.00	207.28	6,163.37	-3,395.27	-1,719.33	3,787.88	4.45	-4.44	0.27
9,782.00	91.56	207.28	6,162.74	-3,436.15	-1,740.41	3,833.62	3.39	3.39	0.00
9,827.00	90.12	206.92	6,162.08	-3,476.20	-1,760.91	3,878.38	3.30	-3.20	-0.80
9,872.00	90.94	207.28	6,161.66	-3,516.26	-1,781.41	3,923.15	1.99	1.82	0.80
9,918.00	91.88	207.91	6,160.53	-3,557.01	-1,802.71	3,968.86	2.46	2.04	1.37
9,963.00	92.13	207.91	6,158.96	-3,596.76	-1,823.76	4,013.53	0.56	0.56	0.00
10,008.00	92.31	208.03	6,157.21	-3,636.47	-1,844.85	4,058.19	0.48	0.40	0.27
10,053.00	95.00	207.78	6,154.35	-3,676.15	-1,865.87	4,102.80	6.00	5.98	-0.56
10,099.00	95.13	206.66	6,150.29	-3,716.90	-1,886.82	4,148.37	2.44	0.28	-2.43
10,144.00	96.63	206.53	6,145.68	-3,756.92	-1,906.86	4,192.94	3.35	3.33	-0.29
10,189.00	95.28	206.40	6,141.01	-3,796.99	-1,926.81	4,237.52	3.01	-3.00	-0.29
10,235.00	94.44	206.16	6,137.11	-3,838.09	-1,947.10	4,283.18	1.90	-1.83	-0.52
10,280.00	93.31	206.91	6,134.07	-3,878.25	-1,967.16	4,327.89	3.01	-2.51	1.67
10,325.00	91.88	205.53	6,132.03	-3,918.58	-1,987.02	4,372.67	4.41	-3.18	-3.07
10,370.00	91.75	205.16	6,130.61	-3,959.23	-2,006.27	4,417.54	0.87	-0.29	-0.82
10,416.00	92.56	206.03	6,128.88	-4,000.68	-2,026.13	4,463.38	2.58	1.76	1.89
10,461.00	92.75	206.41	6,126.79	-4,041.01	-2,045.99	4,508.16	0.94	0.42	0.84
10,506.00	91.84	207.02	6,124.99	-4,081.17	-2,066.20	4,552.93	2.43	-2.02	1.36
LAST SVY									
10,515.00	92.06	206.78	6,124.68	-4,089.20	-2,070.27	4,561.88	3.62	2.44	-2.67
PBHL - GMBU 2-36-8-15H									
10,563.95	92.06	206.78	6,122.92	-4,132.87	-2,092.32	4,610.57	0.00	0.00	0.00

**Weatherford****Weatherford International Ltd.**

## Survey Report

**Weatherford**

Company: NEWFIELD EXPLORATION CO.  
 Project: DUCHESNE COUNTY, UT  
 Site: GMBU 2-36-8-15H  
 Well: GMBU 2-36-8-15H  
 Wellbore: GMBU 2-36-8-15H  
 Design: GMBU 2-36-8-15H

Local Co-ordinate Reference: Well GMBU 2-36-8-15H  
 TVD Reference: KB @ 5791.50ft (CAPSTAR 328)  
 MD Reference: KB @ 5791.50ft (CAPSTAR 328)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature  
 Database: EDM 5000.1 Single User Db

**Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
PROJ SVY									
10,580.00	92.06	206.78	6,122.35	-4,147.19	-2,099.54	4,626.54	0.00	0.00	0.00

**Design Targets****Target Name**

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
GMB 2-36-8-15	0.00	0.00	0.00	429.08	-3.91	7,200,716.38	2,010,196.01	40° 4' 49.191 N	110° 10' 42.270 W
- survey misses target center by 429.10ft at 0.02ft MD (0.02 TVD, 0.00 N, 0.00 E)									
- Circle (radius 200.00)									
PBHL - GMBU 2-36-8-15	0.00	0.00	6,111.24	-4,129.16	-2,098.73	7,196,127.70	2,008,168.77	40° 4' 4.140 N	110° 11' 9.217 W
- survey misses target center by 13.83ft at 10563.95ft MD (6122.92 TVD, -4132.87 N, -2092.32 E)									
- Point									

**Survey Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,515.00	6,124.68	-4,089.20	-2,070.27	LAST SVY
10,580.00	6,122.35	-4,147.19	-2,099.54	PROJ SVY

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# NEWFIELD



Project: DUCHESNE COUNTY, UT  
 Site: GMBU 2-36-8-15H  
 Well: GMBU 2-36-8-15H  
 Wellbore: GMBU 2-36-8-15H  
 Design: GMBU 2-36-8-15H  
 Latitude: 40° 4' 44.950 N  
 Longitude: 110° 10' 42.220 W  
 GL: 5773.50  
 KB: KB @ 5791.50ft (CAPSTAR 328)



# Weatherford®

## WELLBORE TARGET DETAILS (LAT/LONG)

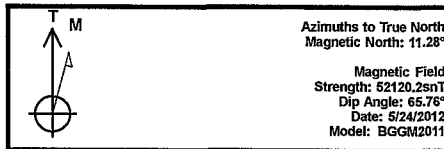
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
GMB 2-36-8-15	0.00	429.08	-3.91	40° 4' 49.191 N	110° 10' 42.270 W	Circle (Radius: 200.00)
PBHL - GMBU 2-36-8-15H	6111.24	-4129.16	-2098.73	40° 4' 4.140 N	110° 11' 9.217 W	Point

## WELL DETAILS: GMBU 2-36-8-15H

+N/-S	+E/-W	Northing	Ground Level: Easting	5773.50 Latitude	Longitude	Slot
0.00	0.00	7200287.41	2010206.26	40° 4' 44.950 N	110° 10' 42.220 W	

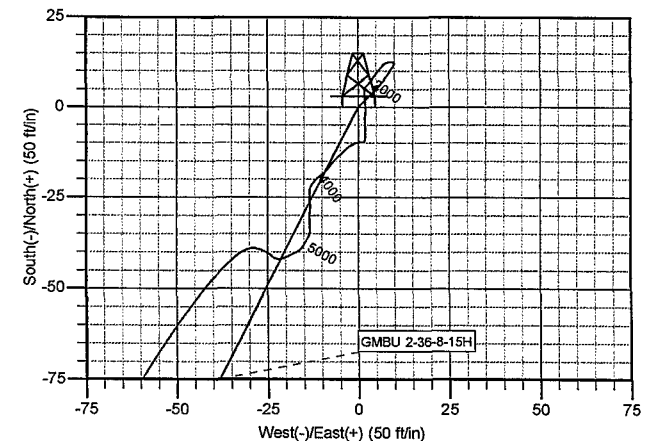
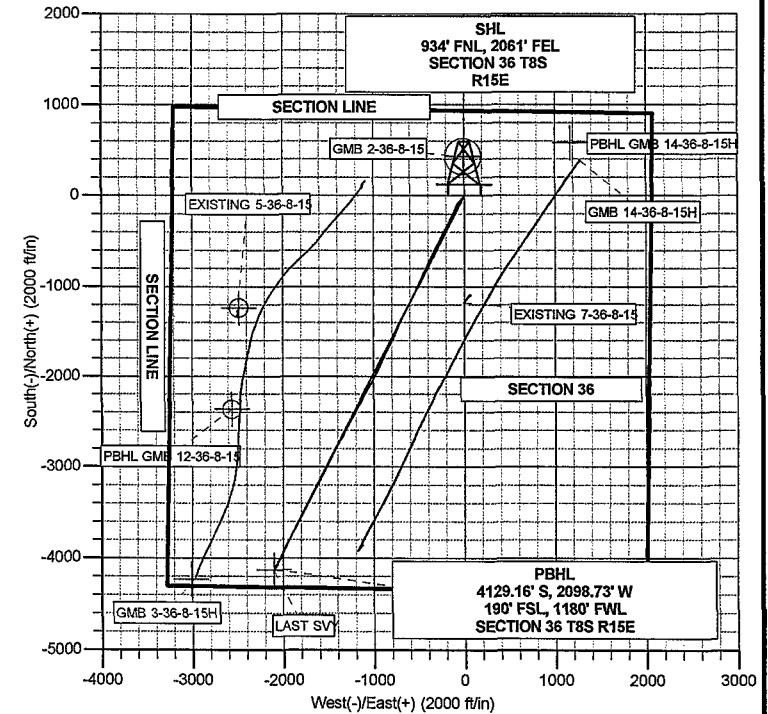
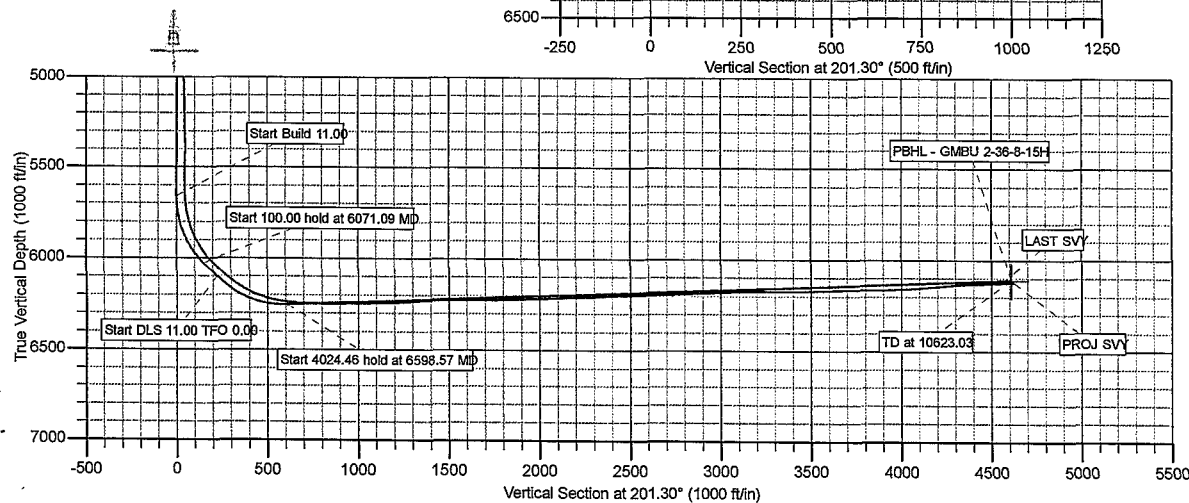
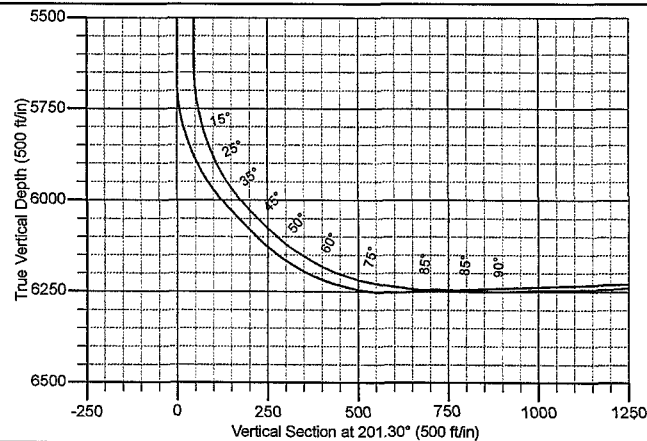
## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5662.00	0.00	0.00	5662.00	0.00	0.00	0.00	0.00	0.00	Start Build 11.00
6071.09	45.00	206.94	6030.31	-136.00	-69.12	11.00	206.94	152.56	Start 100.00 hold at 6071.09 MD
6171.09	45.00	206.94	6101.02	-199.04	-101.15	0.00	0.00	223.27	Start DLS 11.00 TFO 0.00
6598.57	92.02	206.94	6253.26	-543.77	-276.36	11.00	0.00	609.96	Start 4024.46 hold at 6598.57 MD
10623.03	92.02	206.94	6111.24	-4129.16	-2098.73	0.00	0.00	4631.91	TD at 10623.03



## CASING DETAILS

No casing data is available



Design: GMBU 2-36-8-15H (GMBU 2-36-8-15H/GMBU 2-36-8-15H)

Created By: MATT MAYDEW

Date: 9:41, June 19 2012

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21835
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>3. ADDRESS OF OPERATOR:</b> 1001 17th Street, Suite 2000 , Denver, CO, 80202		<b>8. WELL NAME and NUMBER:</b> GMBU 2-36-8-15H
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0934 FNL 2061 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNE Section: 36 Township: 08.0S Range: 15.0E Meridian: S		<b>9. API NUMBER:</b> 43013510650000
<b>PHONE NUMBER:</b> 303 382-4443 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

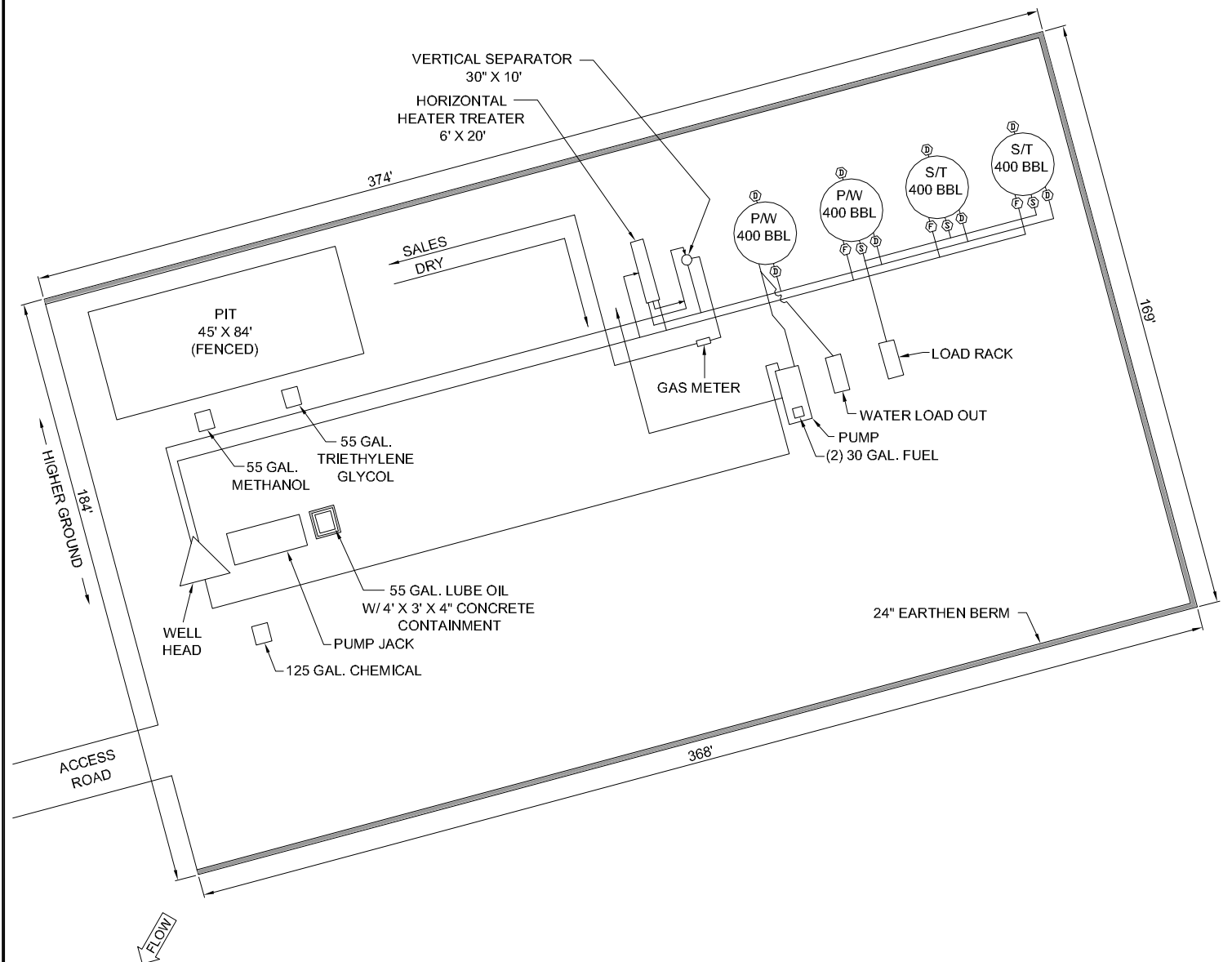
TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 1/2/2014	<input type="checkbox"/> ALTER CASING
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS
	<input type="checkbox"/> CHANGE WELL STATUS
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS
	<input type="checkbox"/> DEEPEN
	<input type="checkbox"/> FRACTURE TREAT
	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE
	<input type="checkbox"/> PLUG AND ABANDON
	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME
	<input type="checkbox"/> RECLAMATION OF WELL SITE
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF
	<input type="checkbox"/> SI TA STATUS EXTENSION
	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION
	<input checked="" type="checkbox"/> OTHER
	OTHER: <span style="border: 1px solid black; padding: 2px;">Site Facility/Site Security</span>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

SEE ATTACHED REVISED SITE FACILITY DIAGRAM

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 January 08, 2014

<b>NAME (PLEASE PRINT)</b> Jill L Loyle	<b>PHONE NUMBER</b> 303 383-4135	<b>TITLE</b> Regulatory Technician
<b>SIGNATURE</b> N/A	<b>DATE</b> 1/3/2014	



## POSITION OF VALVES AND USE OF SEALS DURING PRODUCTION

Valve	Line Purpose	Position	Seal Installed
D	Drain	Closed	Yes
F	Oil, Gas, Water	Open	No
O	Overflow	Open/Closed	No
V	Vent	Open	No
R	Recycle	Closed	Yes
B	Blowdown	Open/Closed	No
S	Sales	Closed	Yes

Valve Type
D - Drain Valve
F - Flow Valve
O - Overflow
V - Vent
R - Recycle
B - Blow Down
S - Sales Valve

Federal Lease #: UTU-87538X  
API #:This lease is subject to the  
Site Security Plan for:  
Newfield Exploration Company  
19 East Pine Street  
Pinedale, WY 82941

GMBU 2-36-8-15H

Newfield Exploration Company  
NWNE Sec 36, T8S, R15E  
Duchesne County, UT

## POSITION OF VALVES AND USE OF SEALS DURING SALES

Valve	Line Purpose	Position	Seal Installed
D	Drain	Closed	Yes
F	Oil, Gas, Water	Closed	Yes
O	Overflow	Closed	Yes
V	Vent	Open	No
R	Recycle	Closed	Yes
B	Blowdown	Closed	No
S	Sales	Open	No

## POSITION OF VALVES AND USE OF SEALS DURING WATER DRAIN

Valve	Line Purpose	Position	Seal Installed
D	Drain	Open	No
F	Oil, Gas, Water	Closed	No
O	Overflow	Closed	No
V	Vent	Open	No
R	Recycle	Closed	Yes
B	Blowdown	Closed	No
S	Sales	Closed	Yes

M.G.

DEC 2012

Note: This drawing  
represents approximate  
sizes and distances.  
Underground pipeline  
locations are also  
approximated.

RECEIVED: Jan. 03, 2014